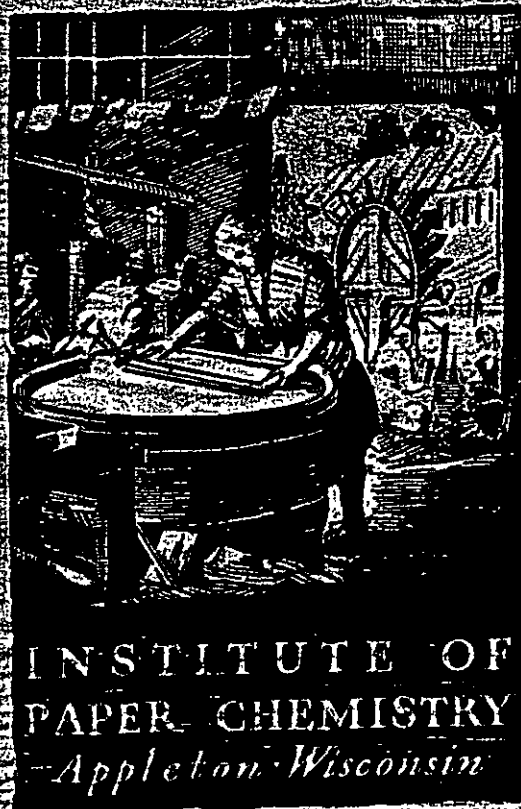


APR 14 MAR 17 1954



Institute of Paper Science and Technology
Central Files

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 80

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

March 1, 1954

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 80

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

March, 1954

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

In conjunction with the F.K.I. Continuous Baseline Study, ninety-six different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by fifteen different F.K.I. mills to The Institute of Paper Chemistry for testing during the period February 1 through February 28. In addition to the 42-lb. kraft linerboard, one sample of special drum stock and several samples of special linerboard were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I
DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	10
B	8
C	8
D	6
E	2
F	13
G	8
H	6
I	8
J	6
K	4
L	6
M	3
M	3
O	5
	<hr/> 96

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period; the current period in the case of this report is February 1 through February 28. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.1 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 100.0. This signifies that the current average basis weight is the same as the cumulative average, which in this case covered the period from July 25, 1947, through January 31, 1954.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills except Mill O conform to the 42-lb. specification set forth in Rule 41. Mill C has the highest average basis weight, it being 44.2 lb. or approximately 5.2% higher than the 42-lb. specification. On the other hand, Mill O

has the lowest average basis weight, it being 41.7 lb., approximately 0.7% lower than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+3.8
B	+2.6
C	+5.2
D	+2.9
E	+3.3
F	+4.0
G	+3.3
H	+1.9
I	+1.0
J	+0.7
K	+2.4
L	+3.6
M	+2.1
N	+4.0
O	-0.7

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have increased slightly.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.1 for Mill G to a high of 13.8 for Mills C and L, the average being 13.0 which is somewhat lower than the cumulative average of 13.8.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II that the average bursting strength values for the various mills range

from a low of 102 for Mill K to a high of 120 for Mill G. The current F.K.I. average bursting strength is 108, slightly higher than the cumulative average of 106.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 35 units. Mills F and N have the highest G. E. puncture average, 40 units; Mill B has the lowest average, 29 units. The current F.K.I. G. E. puncture average of 35 units is only slightly lower than the cumulative F.K.I. average of 36 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill F has the highest average machine direction tear value while Mill B has the lowest. Mill F also has the highest average cross-machine direction tear value, and Mill B has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicate that, for the current period, the current F.K.I. averages for caliper, G. E. puncture and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for bursting strength is higher and for basis weight the same.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XVII for Mills A to O, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for

each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor } (\%)$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index } (\%)$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVIII.

It may be noted in Tables III through XVIII that the data have been separated on the basis of the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
A	10 ^a		
B	8 ^a		
C	8		
D	6		

(Continued on the next page.)

Mill Code Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
E			2 ^c , 1 ^{bc}
F	13		
G	8		
H	6 ^a		
I	2, 4 ^a		2 ^c
J			6 ^d
K			4 ^c
L			6 ^c
M	3		
N	1 ^a	1	1 ^c
O	5		

a One side only.

b Drum linerboard.

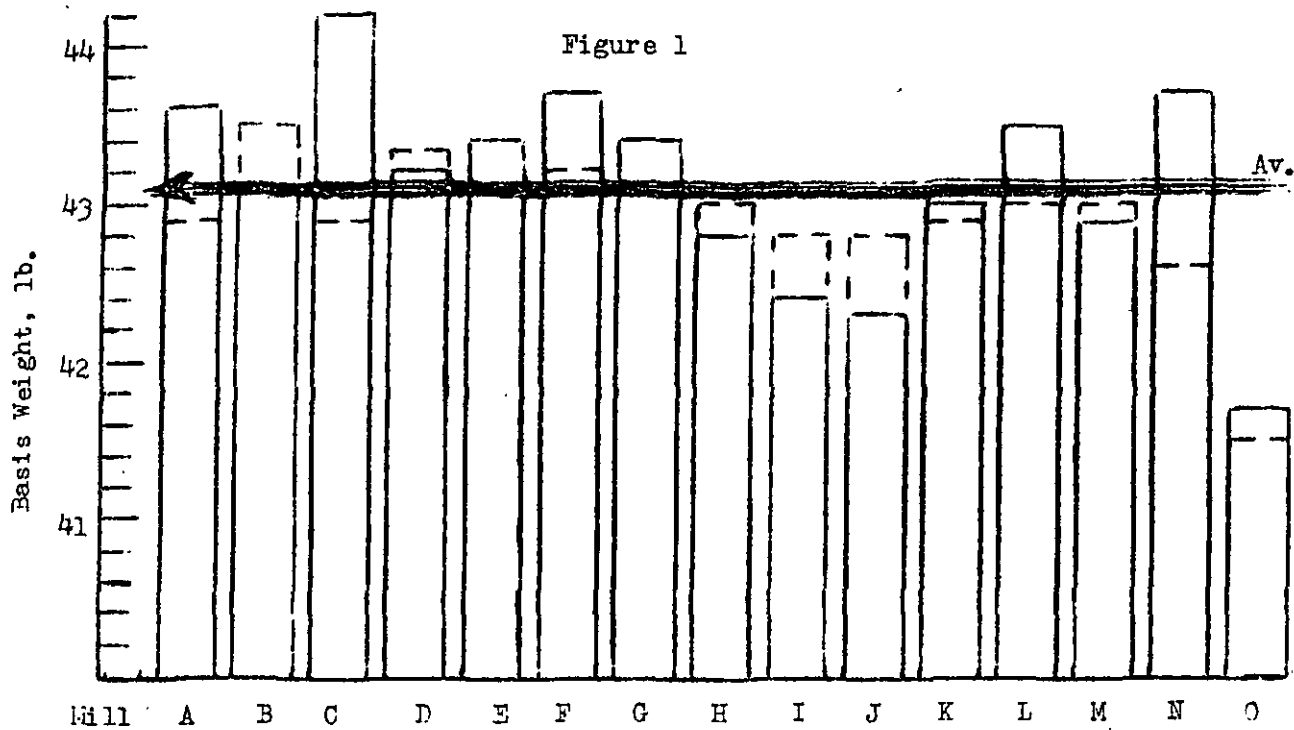
c Sheet finish not reported.

d Semi-water finish.

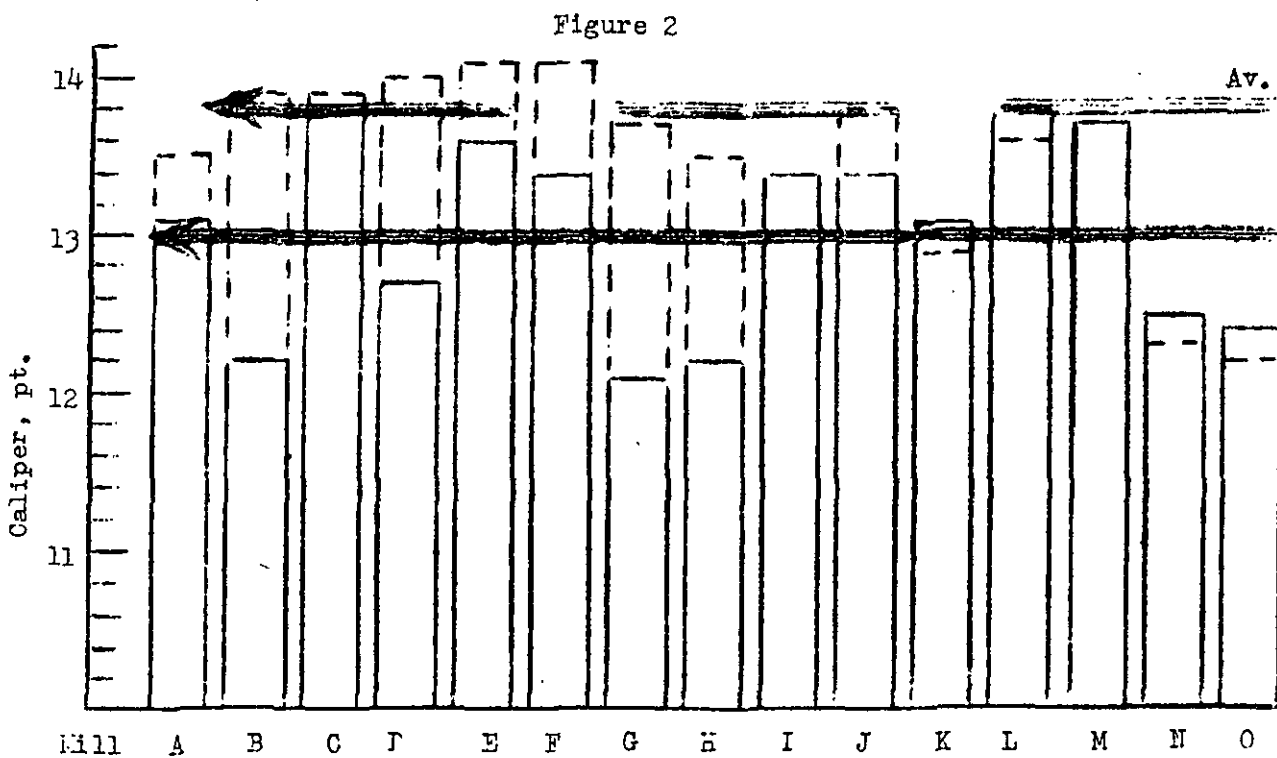
The results indicate that a majority of the mills are using
a water finish on their 42-lb. linerboard.

TABLE II
SUMMARY OF COMPOSITE MILL AVERAGES--FEBRUARY 1 THROUGH FEBRUARY 28, 1954

Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet	In Direction	Across Direction
A	43.6	13.1	110	33		326	368
B	43.1	12.2	112	29		276	346
C	44.2	13.8	109	35		344	392
D	43.2	12.7	107	37		383	394
E	43.4	13.6	103	34		377	393
F	43.7	13.4	107	40		406	423
G	43.4	12.1	120	31		327	365
H	42.8	12.2	105	32		345	377
I	42.4	13.4	106	33		323	385
J	42.3	13.4	112	31		335	383
K	43.0	13.1	102	37		369	379
L	43.5	13.8	111	36		344	387
M	42.9	13.7	103	35		372	387
N	43.7	12.5	107	40		362	415
O	41.7	12.4	109	36		337	371
Current FKI Average:	43.1	13.0	108	35		348	384
Cumulative FKI average:	43.1	13.8	106	36		369	403
FKI Index, %:	100.0	94.2	101.9	97.2		94.3	95.3



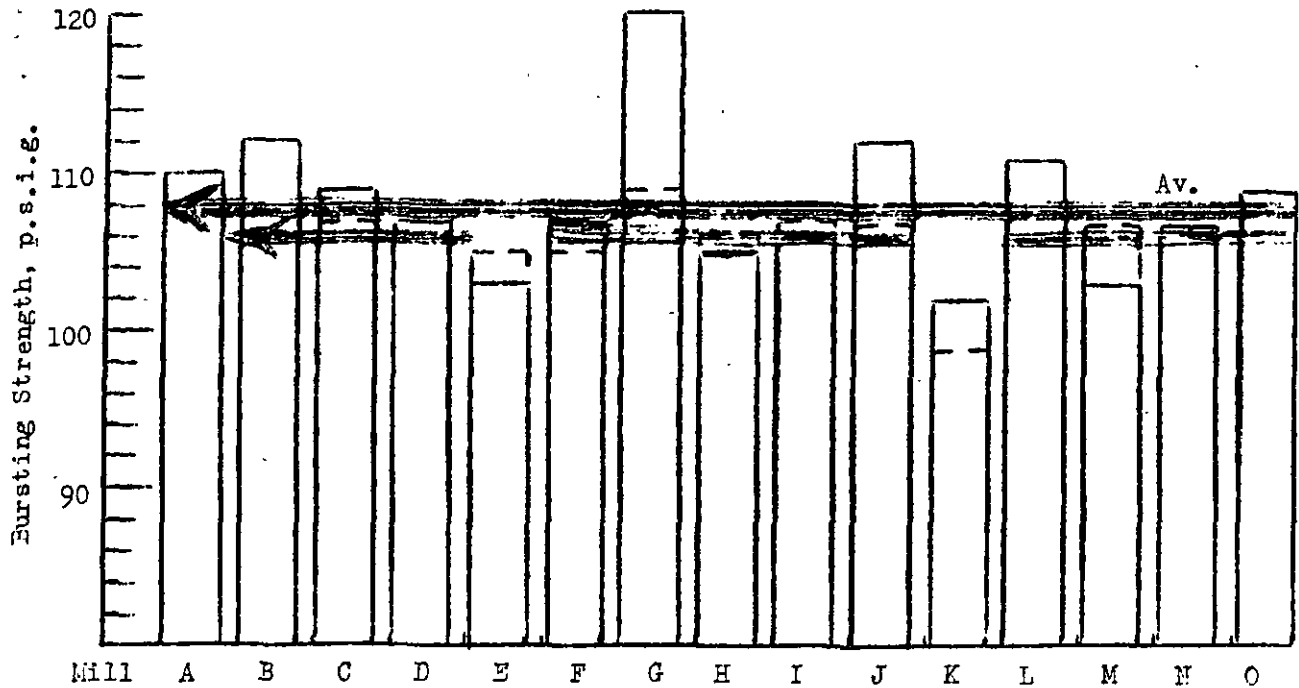
COMPARISON OF BASIS WEIGHT RESULTS
(Period February 1 - February 28)



COMPARISON OF CALIPER RESULTS
(Period February 1 - February 28)

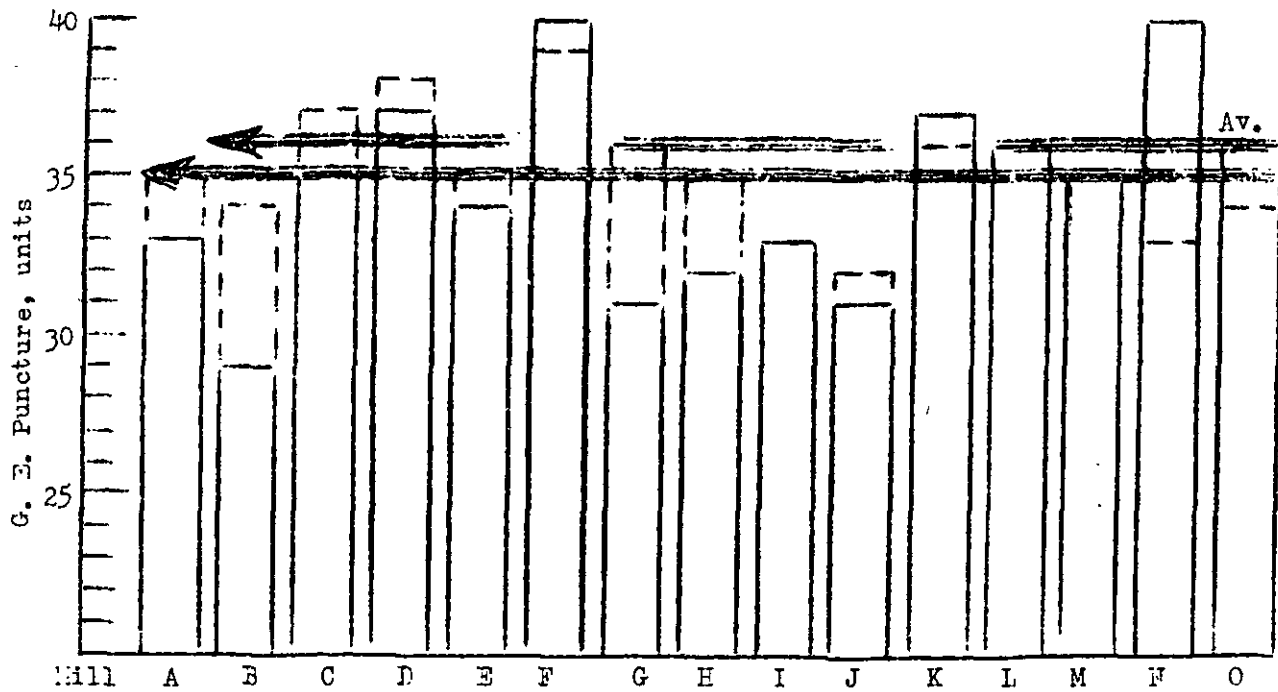
———— Current mill average
----- Cumulative mill average

Figure 3

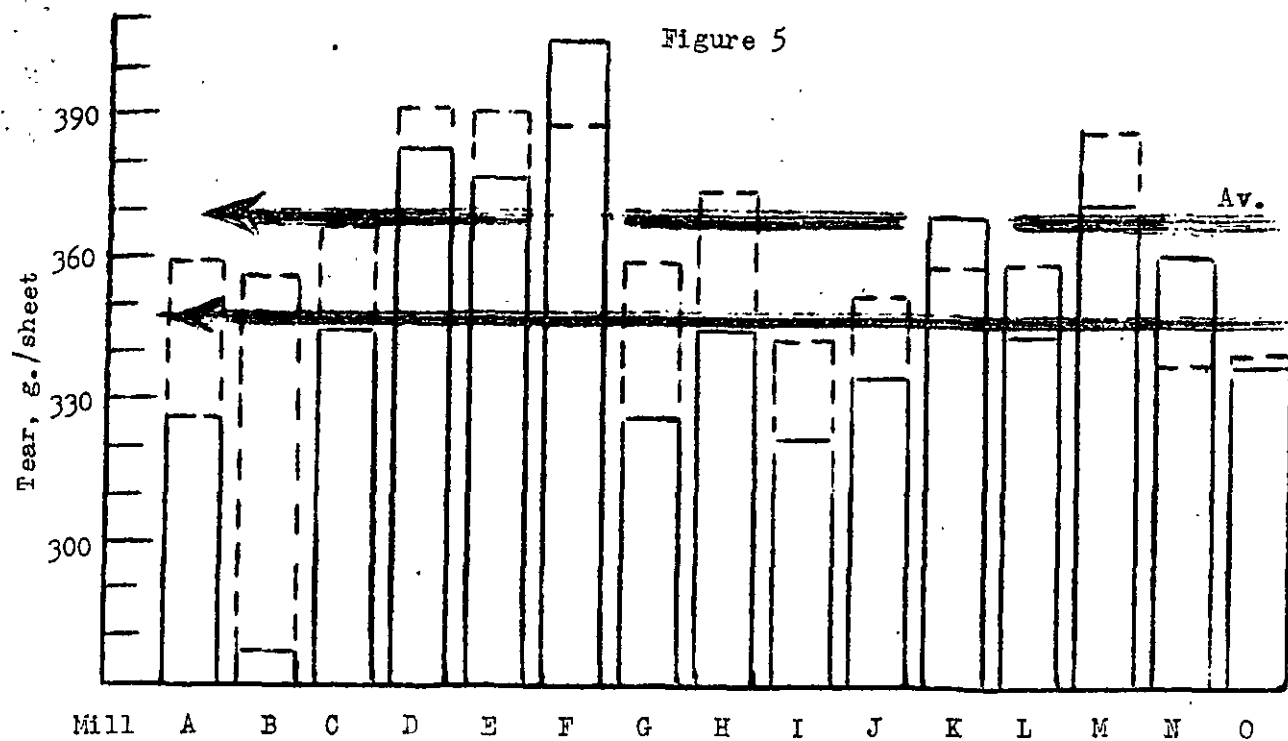


COMPARISON OF BURSTING STRENGTH RESULTS
(Period February 1 - February 28)

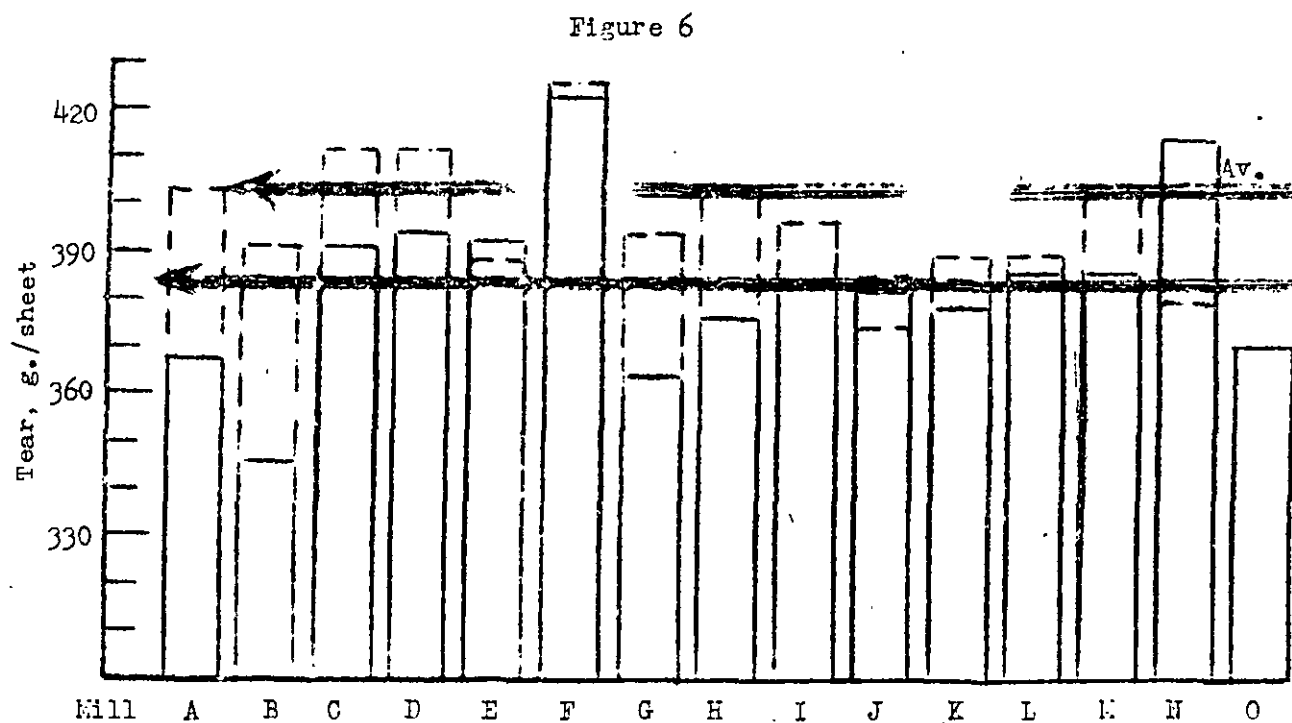
Figure 4



COMPARISON OF G. E. PUNCTURE RESULTS
(Period February 1 - February 28)



COMPARISON OF TEAR RESULTS, Machine Direction
(Period February 1 - February 28)



COMPARISON OF TEAR RESULTS, Across-machine Direction
(Period February 1 - February 28)

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954

Mch. No.	Basis Weight, lb.		Caliper, points		Strength, p.s.i. gage		Puncture, units		Elmendorf Tear, g./sheet									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In			Across						
									Max.	Min.	Av.							
Mill A-42-lb. Linerboard																		
4	44.0	42.2	43.4	13.0	12.4	12.7	130	90	110	33	28	31	392	272	331 ^a	392	336	360 ^a
4	43.6	42.4	43.1	13.5	12.4	12.9	128	86	105	38	32	36	416	320	360	416	344	382 ^a
4	44.4	43.6	44.0	14.0	13.1	13.5	131	88	108	32	28	30	352	264	323 ^a	440	328	372 ^a
4	45.0	43.4	44.1	14.0	13.2	13.7	129	87	112	34	28	31	384	288	343 ^a	400	336	371 ^a
4	44.2	43.8	44.0	13.3	12.5	12.9	147	81	115	35	30	33	368	288	313 ^a	408	336	373 ^a
4	44.2	43.2	43.9	13.1	12.2	12.8	139	89	114	35	29	32	360	272	309 ^a	400	320	363 ^a
4	44.0	42.8	43.5	13.1	12.4	12.9	125	88	110	36	30	33	328	264	303 ^a	408	336	364 ^a
4	44.0	42.0	43.2	13.2	12.2	12.8	132	80	111	34	30	33	352	280	311 ^a	376	288	350 ^a
4	43.8	42.4	43.4	13.6	12.4	13.2	137	72	112	39	34	36	360	288	319 ^a	416	336	376 ^a
4	44.0	42.4	43.2	13.9	12.8	13.2	135	74	107	38	31	35	432	296	346 ^a	400	328	372 ^a
			43.6			13.1			110			33			326			368
			42.9			13.5			108			35			359			403
			101.6			97.0			101.9			94.3			90.8			91.3
			101.2			94.9			103.8			91.7			88.3			91.3

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954

File No.	Mill Code	Fish	Fin-	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Puncture, units		In							
							Max.	Min.	Max.	Min.	Max.	Min.		Max.	Min.					
Mill A-42-1b. Linerboard																				
156810	A-515	WF1S	2/	1/54	1/22/54	1	44.0	42.2	43.4	13.0	12.4	12.7	130	90	110	33	28	31	392	272
156811	A-516	WF1S	2/	1/54	1/12/54	2	43.6	42.4	43.1	13.5	12.4	12.9	128	86	105	38	32	36	416	320
156818	A-517	WF1S	2/	1/54	1/21/54	2	44.4	43.6	44.0	14.0	13.1	13.5	131	88	108	32	28	30	352	264
156819	A-518	WF1S	2/	1/54	1/21/54	2	45.0	43.4	44.1	14.0	13.2	13.7	129	87	112	34	28	31	384	288
156854	A-519	WF1S	2/	4/54	1/24/54	1	44.2	43.8	44.0	13.3	12.5	12.9	147	81	115	35	30	33	368	288
156855	A-520	WF1S	2/	4/54	1/24/54	1	44.2	43.2	43.9	13.1	12.2	12.8	139	89	114	35	29	32	360	272
156883	A-521	WF1S	2/	8/54	2/ 1/54	1	44.0	42.8	43.5	13.1	12.4	12.9	125	88	110	36	30	33	328	264
156884	A-522	WF1S	2/	8/54	2/ 1/54	1	44.0	42.0	43.2	13.2	12.2	12.8	132	80	111	34	30	33	352	280
156957	A-523	WF1S	2/	17/54	2/ 7/54	2	43.8	42.4	43.4	13.6	12.4	13.2	137	92	112	39	34	36	360	288
156958	A-524	WF1S	2/	17/54	2/11/54	2	44.0	42.4	43.2	13.9	12.8	13.2	135	74	107	38	31	35	432	296
Current Mill Average:							43.6			13.1			110			33				
Cumulative Mill Average:							42.9			13.5			108			35				
Mill Factor, %:							101.6			97.0			101.9			94.3				
Mill Index, %:							101.2			94.9			103.8			91.7				

* This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV
SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Across							
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
<u>Mill B--42-lb. Linerboard.</u>																		
4	43.8	42.2	43.1	13.1	11.7	12.4	136	83	112	31	28	30	320	240	280 ^a	368	320	345 ^a
4	43.8	41.6	42.8	13.0	11.8	12.3	134	89	114	30	25	28	312	232	273 ^a	392	312	351 ^a
4	44.2	42.6	43.4	13.1	11.4	12.3	141	83	111	32	27	29	312	240	283 ^a	376	320	348 ^a
4	44.0	42.4	43.2	13.3	11.6	12.2	126	89	111	31	27	28	304	240	267	424	304	351 ^a
4	44.0	42.4	43.2	13.0	11.9	12.3	132	87	114	31	28	29	320	248	276 ^a	360	296	330 ^a
4	44.0	42.2	43.2	13.1	11.8	12.2	129	94	114	31	27	29	336	240	277 ^a	400	312	350 ^a
4	43.8	42.2	43.1	12.7	11.8	12.2	129	89	112	31	27	28	304	248	277 ^a	368	304	344 ^a
4	44.0	42.2	43.1	12.7	11.5	12.2	128	90	112	30	26	28	320	240	277 ^a	496	304	352 ^a
			43.1			12.2			112		29				276			346
			43.5			13.9			106		34				356			392
			99.1			87.8			105.7		85.3				77.5			88.3
			100.0			88.4			105.7		80.6				74.8			85.9

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continue)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		I					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.		Av.	Max.	Min.	Av.	
<u>Mill B-42-lb. Linerboard.</u>																			
156830	B-943	WFIS	2/ 1/54	1/15/54	1	43.8	42.2	43.1	13.1	11.7	12.4	136	83	112	31	28	30	320	24
156831	B-944	WFIS	2/ 1/54	1/15/54	1	43.8	41.6	42.8	13.0	11.8	12.3	134	89	114	30	25	28	312	23
156832	B-945	WFIS	2/ 1/54	1/15/54	1	44.2	42.6	43.4	13.1	11.4	12.3	141	83	111	32	27	29	312	24
156833	B-946	WFIS	2/ 1/54	1/15/54	1	44.0	42.4	43.2	13.3	11.6	12.2	126	89	111	31	27	28	304	24
156850	B-947	WFIS	2/ 4/54	1/15/54	1	44.0	42.4	43.2	13.0	11.9	12.3	132	87	114	31	28	29	320	24
156851	B-948	WFIS	2/ 4/54	1/15/54	1	44.0	42.2	43.2	13.1	11.8	12.2	129	94	114	31	27	29	336	24
156852	B-949	WFIS	2/ 4/54	1/15/54	1	43.8	42.2	43.1	12.7	11.8	12.2	129	89	112	31	27	28	304	24
156853	B-950	WFIS	2/ 4/54	1/15/54	1	44.0	42.2	43.1	12.7	11.5	12.2	128	90	112	30	26	28	320	24
Current Mill Average:							43.1		12.2		112		29						
Cumulative Mill Average:							43.5		13.9		106		34						
Mill Factor, %:							99.1		87.8		105.7		85.3						
Mill Index, %:							100.0		88.4		105.7		80.6						

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V
SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
Mill C-42-lb. Linerboard																		
154	44.4	42.6	43.5	14.5	13.2	13.9	133	81	105	36	32	34	400	296	337 ^a	400	336	375 ^a
154	44.2	43.0	43.8	14.3	12.9	13.8	124	91	108	37	31	34	368	320	336 ^a	448	328	384 ^a
154	46.0	44.8	45.5	14.9	13.3	13.9	133	87	110	40	33	36	360	296	333	448	368	404 ^a
154	46.0	45.0	45.7	14.8	13.2	14.2	126	86	106	38	33	36	376	312	341 ^a	416	328	388 ^a
154	46.6	44.4	45.8	14.9	12.9	14.1	141	85	108	38	34	36	400	336	365 ^a	416	352	394 ^a
154	43.4	42.2	42.7	14.0	12.9	13.4	132	88	110	35	31	34	416	320	349	440	336	392 ^a
154	43.2	42.2	42.6	13.9	13.0	13.5	127	94	113	36	32	34	384	288	331 ^a	400	352	377 ^a
154	44.4	43.0	43.9	14.2	12.8	13.5	133	88	112	38	34	36	400	320	356	472	368	423 ^a
			44.2			13.8			109			35			344			392
			42.9			13.9			107			37			367			412
			103.0			99.3			101.9			94.6			93.7			95.1
			102.6			100.0			102.8			97.2			93.2			97.3

gs for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		In Max. Min					
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
Mill C-42-lb. Linerboard																			
156890	C-539	W.F.	2/ 8/54	2/ 2/54	1	44.4	42.6	43.5	14.5	13.2	13.9	133	81	105	36	32	34	400	296
156891	C-540	W.F.	2/ 8/54	2/ 2/54	1	44.2	43.0	43.8	14.3	12.9	13.8	124	91	108	37	31	34	368	320
156961	C-541	W.F.	2/17/54	2/ 7/54	1	46.0	44.8	45.5	14.9	13.3	13.9	133	87	110	40	33	36	360	296
156962	C-542	W.F.	2/17/54	2/ 7/54	1	46.0	45.0	45.7	14.8	13.2	14.2	126	86	106	38	33	36	376	312
156963	C-543	W.F.	2/17/54	2/ 7/54	1	46.6	44.4	45.8	14.9	12.9	14.1	141	85	108	38	34	36	400	336
156964	C-544	W.F.	2/17/54	2/ 8/54	1	43.4	42.2	42.7	14.0	12.9	13.4	132	88	110	35	31	34	416	320
156965	C-545	W.F.	2/17/54	2/ 8/54	1	43.2	42.2	42.6	13.9	13.0	13.5	127	94	113	36	32	34	384	288
156966	C-546	W.F.	2/17/54	2/10/54	1	44.4	43.0	43.9	14.2	12.8	13.5	133	88	112	38	34	36	400	320
Current Mill Average:						44.2		13.8		109		35							
Cumulative Mill Average:						42.9		13.9		107		37							
Mill Factor, %:						103.0		99.3		101.9		94.6							
Mill Index, %:						102.6		100.0		102.8		97.2							

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

TABLE VII

Mill F-42-1b: Linerboard.

	2	45.4	43.6	44.5	14.2	13.2	13.8	123	68	102	38	34	36	384	352	370 ^a	448	336	390 ^a
3/54	2	43.8	41.0	42.3	14.0	12.9	13.3	126	88	103	36	28	32	560	320	384 ^a	480	336	396 ^a
				43.4			13.6			103			34			377	-		393
				43.1			14.1			105			35			391.			388
				100.7			96.5			98.1			97.1			96.4			101.3
				100.7			98.6			97.2			94.4			102.2			97.5

ings for one or more specimens which tore beyond the $3/8$ -inch limit.

SUMMARY OF INDIVIDUAL ESTATE LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Ir Max. Mir					
						Max.	Min.	Max.	Av.	Max.	Min.	Max.	Min.		Max.	Min.			
Mill D--42-lb. Linerboard																			
156808	D-733	W.F.	2/ 1/54	1/22/54	4	43.8	42.2	43.0	12.8	11.3	12.1	123	84	103	39	32	35	416	336
156809	D-734	W.F.	2/ 1/54	1/24/54	--	43.8	41.0	42.5	13.2	11.8	12.6	123	73	98	38	33	35	480	312
156999	D-735	W.F.	2/23/54	2/ 6/54	4	44.0	42.2	43.1	13.2	11.9	12.7	136	76	110	38	32	36	464	320
157000	D-736	W.F.	2/23/54	2/ 7/54	4	43.0	41.4	42.2	13.3	12.0	12.6	141	88	112	38	32	35	448	336
156985	D-737	W.F.	2/20/54	2/13/54	4	44.6	42.6	44.1	13.8	12.6	13.2	132	77	106	43	37	41	448	360
156986	D-738	W.F.	2/20/54	2/14/54	4	44.8	42.8	44.2	13.3	12.5	13.0	133	78	111	43	37	39	464	352
Current Mill Average							43.2		12.7			107			37				
Cumulative Mill Average:							43.3		14.0			107			38				
Mill Factor, %:							99.8		90.7			100.0			97.4				
Mill Index, %:							100.2		92.0			100.9			102.8				

Mill E-42-1b: Linerboard.

156987	E-60	--	2/20/54	2/18/54	2	45.4	43.6	44.5	14.2	13.2	13.8	123	68	102	38	34	36	384	35%
157017	E-61	--	2/25/54	2/23/54	2	43.8	41.0	42.3	14.0	12.9	13.3	126	88	103	36	28	32	560	32%
Current Mill Average:																			
Cumulative Mill Average:																			
Mill Factor, %:																			
Mill Index, %:																			

a This average includes the readings for one or more specimens which tore beyond the $3/8$ -inch limit.

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
Mill F--42-lb. Linerboard																		
3	45.0	44.0	44.5	14.2	13.0	13.7	122	88	105	44	36	41	480	344	421 ^a	472	360	422 ^a
3	45.0	43.2	44.1	14.0	12.8	13.4	141	91	113	42	36	39	440	352	405 ^a	472	352	411 ^a
3	44.2	42.4	43.6	14.0	12.6	13.3	128	87	110	41	38	40	464	360	403 ^a	448	376	416 ^a
3	44.2	42.6	43.6	13.2	11.9	12.6	141	89	114	42	37	40	448	336	385 ^a	528	384	434 ^a
3	44.2	42.4	43.4	14.0	12.2	13.1	129	89	110	44	39	41	456	352	401 ^a	464	376	415 ^a
3	44.0	42.0	43.1	13.8	12.1	13.2	128	80	105	46	38	41	432	352	399 ^a	496	352	418 ^a
4	43.8	42.2	42.9	14.0	12.9	13.5	121	89	104	43	35	39	512	360	413 ^a	480	400	428 ^a
4	45.6	42.8	44.1	14.5	12.4	13.7	132	84	111	46	38	41	448	328	393 ^a	472	408	445 ^a
4	44.0	42.0	43.1	41.2	12.8	13.5	129	84	110	41	36	39	416	320	390 ^a	456	368	409 ^a
4	45.0	43.6	44.0	41.6	13.0	13.8	130	94	107	44	38	42	480	384	426 ^a	512	384	442 ^a
4	45.0	43.6	44.3	14.1	13.0	13.6	128	85	103	44	34	40	464	400	430 ^a	480	352	428 ^a
4	44.4	42.6	43.6	14.5	12.5	13.7	121	78	98	46	38	42	440	352	398 ^a	464	400	423 ^a
4	45.2	44.0	44.3	14.4	12.0	13.3	126	85	105	40	34	38	480	384	420 ^a	448	360	408 ^a
			43.7			13.4		107				40			406			423
			43.2			14.1		105				39			388			426
			101.2			95.0		101.9				102.6			104.6			99.3
			101.4			97.1		100.9				111.1			110.0			105.0

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i.		G. E. Puncture, units		Elme g						
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		Max.	Min.				
Mill F--42-lb. Linerboard																				
156820	F-96	W.F.	2/ 1/54	12/30/53	--	45.0	44.0	44.5	14.2	13.0	13.7	122	88	105	44	36	41	480	344	4
156821	F-97	W.F.	2/ 1/54	12/30/53	--	45.0	43.2	44.1	14.0	12.8	13.4	141	91	113	42	36	39	440	352	4
156822	F-98	W.F.	2/ 1/54	12/30/53	--	44.2	42.4	43.6	14.0	12.6	13.3	128	87	110	41	38	40	464	360	4
156824	F-99	W.B.	2/ 1/54	12/30/53	--	44.2	42.6	43.6	13.2	11.9	12.6	141	89	114	42	37	40	448	336	2
156825	F-100	W.F.	2/ 1/54	12/30/53	--	44.2	42.4	43.4	14.0	12.2	13.1	129	89	110	44	39	41	456	352	4
156867	F-101	W.F.	2/ 6/54	12/30/53	--	44.0	42.0	43.1	13.8	12.1	13.2	128	80	105	46	38	41	432	352	3
156868	F-102	W.F.	2/ 6/54	--	--	43.8	42.2	42.9	14.0	12.9	13.5	121	89	104	43	35	39	512	360	4
156933	F-1	W.F.	2/15/54	1/12/54	--	45.6	42.8	44.1	14.5	12.4	13.7	132	84	111	46	38	41	448	328	3
156934	F-2	W.F.	2/15/54	1/12/54	--	44.0	42.0	43.1	41.2	12.8	13.5	129	84	110	41	36	39	416	320	3
156935	F-3	W.F.	2/15/54	2/ 1/54	--	45.0	43.6	44.0	41.6	13.0	13.8	130	94	107	44	38	42	480	384	4
156936	F-4	W.F.	2/15/54	2/ 4/54	--	45.0	43.6	44.3	14.1	13.0	13.6	128	85	103	44	34	40	464	400	3
156937	F-5	W.F.	2/15/54	2/ 5/54	--	44.4	42.6	43.6	14.5	12.5	13.7	121	78	98	46	38	42	440	352	3
156992	F-6	W.F.	2/22/54	2/ 9/54	--	45.2	44.0	44.3	14.4	12.0	13.3	126	85	105	40	34	38	480	384	4
Current Mill Average:								43.7			13.4			107			40			4
Cumulative Mill Average:								43.2			14.1			105			39			3
Mill Factor, %:								101.2			95.0			101.9			102.6			1
Mill Index, %:								101.4			97.1			100.9			111.1			1

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

[illegible]

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS—FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Pin- ish	Date Recd.	Date Made	Nch To.	Basis Weight,		Caliper,		Bursting Strength,		G. E. Puncture,							
						lb.		points		p.s.i. gage	units	Max. Min.	Max. Min.						
						Max.	Min.	iv.	Max.	Min.	iv.	Max.	Min.						
Mill G-42-lb. Linerboard																			
156848	G-560	W.F.	2/ 3/54	1/23/54	—	43.8	41.6	42.8	12.4	11.4	12.0	144	105	126	30	26	28	344	29
156849	G-561	W.F.	2/ 3/54	1/23/54	—	43.8	42.2	42.9	12.8	11.6	12.1	145	103	125	32	27	30	352	30
156856	G-562	W.F.	2/ 4/54	1/29/54	—	42.6	40.2	41.5	12.7	11.2	11.9	138	100	119	30	25	28	320	20
156857	G-563	W.F.	2/ 4/54	1/29/54	—	46.4	45.0	45.8	13.4	12.1	12.7	145	106	125	35	30	32	368	28
156881	G-564	W.F.	2/ 8/54	2/ 2/54	—	44.4	41.6	43.2	13.2	11.8	12.7	140	102	117	36	30	33	368	28
156882	G-565	W.F.	2/ 8/54	2/ 2/54	—	45.8	43.8	45.2	13.5	12.2	12.9	126	101	113	35	29	32	384	31
156995	G-566	W.F.	2/23/54	2/16/54	—	43.0	41.6	42.4	11.1	10.2	10.8	132	95	118	32	27	30	368	27
156996	G-567	W.F.	2/23/54	2/16/54	—	45.8	43.0	43.8	12.2	10.6	11.9	137	66	118	35	30	33	384	30

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

P'ch. No.	Basis Weight, lb.		Caliper, points		Eursting Strength, p.s.i. gage		G. E. D. Puncture, units		Elmendorf Tear, g./sheet									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
<u>Mill H--42-lb. Linerboard</u>																		
4	44.0	42.4	43.0	12.3	11.7	12.0	134	87	107	35	29	32	416	288	348 ^a	464	352	389 ^a
4	43.4	42.2	42.9	12.4	11.6	12.0	123	74	106	35	28	32	384	288	333 ^a	432	320	372 ^a
4	43.8	42.0	42.7	12.6	11.8	12.2	126	76	100	36	30	32	400	312	354 ^a	432	336	379 ^a
4	43.8	42.4	43.3	13.1	12.4	12.8	135	71	107	39	32	35	416	312	357 ^a	432	352	380 ^a
4	43.2	41.4	42.3	12.5	11.7	12.0	127	74	102	35	30	31	384	296	339 ^a	408	304	367 ^a
4	43.4	42.2	42.6	12.3	11.4	11.9	131	85	107	35	29	32	400	288	336 ^a	416	336	376 ^a
			42.8			12.2			105			32			345			377
			43.0			13.5			106			35			374			404
			99.5			90.4			99.1			91.4			92.2			93.3
			99.3			88.4			99.1			88.9			93.5			93.5

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE X

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight,		Caliper,		Eursting Strength,		G. E. Puncture,		Max. Min. Av.	Max. Min. Av.				
						Max. Min.	lb. av.	Max. Min.	points av.	Max. Min.	p.s.i. gage av.	Max. Min.	units av.						
0																			
<u>Mill H--42-lb. Linerboard</u>																			
156885	H-431	WF1S	2/ 8/54	2/ 1/54	2	44.0	42.4	43.0	12.3	11.7	12.0	134	87	107	35	29	32	416	28
156886	H-432	WF1S	2/ 8/54	2/ 2/54	2	43.4	42.2	42.9	12.4	11.6	12.0	123	74	106	35	28	32	384	28
156959	H-433	WF1S	2/17/54	2/ 7/54	2	43.8	42.0	42.7	12.6	11.8	12.2	126	76	100	36	30	32	400	31
156960	H-434	WF1S	2/17/54	2/ 8/54	2	43.8	42.4	43.3	13.1	12.4	12.8	135	71	107	39	32	35	416	31
157018	H-435	WF1S	2/25/54	2/15/54	2	43.2	41.4	42.3	12.5	11.7	12.0	127	74	102	35	30	31	384	29
157019	H-436	WF1S	2/25/54	2/16/54	2	43.4	42.2	42.6	12.3	11.4	11.9	131	85	107	35	29	32	400	28
Current Mill Average:								42.8			12.2			105			32		
Cumulative Mill Average:								43.0			13.5			106			35		
Mill Factor, %:								99.5			90.4			99.1			91.4		
Mill Index, %:								99.3			88.4			99.1			88.9		

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI
SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

Kch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
<u>Mill I--42-lb. Linerboard</u>																		
1	43.8	41.6	42.8	13.0	12.4	12.8	130	94	110	34	28	31	352	288	321 ^a	432	328	376 ^a
1	43.2	41.6	42.0	13.1	12.3	12.8	123	87	106	33	27	30	360	272	317 ^a	416	336	373 ^a
1	44.0	42.0	43.6	14.1	12.6	13.3	117	83	103	37	32	35	400	304	349 ^a	416	336	383 ^a
1	44.0	42.8	43.6	13.9	12.4	13.3	118	86	102	38	34	36	384	288	333 ^a	448	376	413 ^a
1	42.4	41.2	41.9	14.0	12.8	13.5	121	83	106	34	28	31	368	256	323 ^a	456	360	387 ^a
1	42.8	41.0	41.8	14.1	13.1	13.6	126	91	107	34	30	32	336	288	315 ^a	416	352	381 ^a
1	42.6	40.8	41.9	14.8	13.1	13.8	121	80	106	34	30	33	368	272	321 ^a	448	352	395 ^a
1	42.8	41.4	41.9	14.2	13.2	13.8	121	83	105	34	29	32	320	288	307	416	360	375 ^a
			42.4			13.4		106			33				323			385
			42.8			13.4		107			33				343			397
			99.1			100.0		99.1			100.0				94.2			97.0
			98.4			97.1		100.0			91.7				87.5			95.5

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Ech. No.	Basis Weight,		Caliper,		Bursting Strength,		G. E.		In Elm.					
						lb.		points		p.s.i.		units							
			Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Max.					
<u>Mill I--42-lb. Linerboard</u>																			
156858	I-358	W.F.	2/ 4/54	1/12/54	1	43.8	41.6	42.8	13.0	12.4	12.8	130	94	110	34	28	31	352	288
156859	I-359	W.F.	2/ 4/54	1/12/54	1	43.2	41.6	42.0	13.1	12.3	12.8	123	87	106	33	27	30	360	272
156865	I-364	WFLS	2/ 6/54	2/ 1/54	1	44.0	46.0	43.6	14.1	12.6	13.3	117	83	103	37	32	35	400	304
156866	I-365	WFLS	2/ 6/54	2/ 2/54	1	44.0	42.8	43.6	13.9	12.4	13.3	118	86	102	38	34	36	384	288
156879	I-365	--	2/ 8/54	2/ 3/54	1	42.4	41.2	41.9	14.0	12.8	13.5	121	83	106	34	28	31	368	256
156880	I-367	--	2/ 8/54	2/ 3/54	1	42.8	41.0	41.8	14.1	13.1	13.6	126	91	107	34	30	32	336	288
156993	I-368	WFLS	2/22/54	2/17/54	1	42.6	40.8	41.9	14.8	13.1	13.8	121	80	106	34	30	33	368	272
157016	I-369	WFLS	2/25/54	2/19/54	1	42.8	41.4	41.9	14.2	13.2	13.8	121	83	105	34	29	32	320	288
Current Mill Average:						42.4		42.4	13.4		13.4	106		106		33			
Cumulative Mill average:						42.8		42.8	13.4		13.4	107		107		33			
Mill Factor, %:						99.1		99.1	100.0		100.0	99.1		99.1		100.0			
Mill Index, %:						98.4		98.4	97.1		97.1	100.0		100.0		91.7			

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

[illegible]

TABLE XIII

Mill K--42-1b. Linerboard

4	7	44.8	43.2	44.1	14.2	13.0	13.4	135	83	105	42	36	39	448	328	375 ^a	416	336	380
4	7	44.6	41.4	43.1	13.8	12.9	13.3	125	81	105	42	34	37	408	304	339 ^a	408	352	380 ^a
4	7	42.4	40.2	41.6	13.8	12.2	12.9	108	76	93	37	33	35	448	312	381 ^a	384	320	351 ^a
4	7	44.2	41.6	43.0	13.5	12.0	12.8	122	88	106	42	34	38	432	336	382 ^a	448	352	407 ^a
				43.0			13.1	102					37			369			379
				42.9			12.9	99					36			358			390
				100.2			101.6	103.0					102.8			103.1			97.2
				99.8			94.9	96.2					102.8			100.0			94.0

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		In Max. Min.					
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
Mill J-42-lb. Linerboard																			
156826	J-469	B.F.	2/ 1/54	1/12/54	--	43.6	42.0	42.8	13.8	12.1	12.8	136	102	115	34	30	32	416	280
156827	J-470	B.F.	2/ 1/54	1/12/54	--	43.8	41.8	42.8	13.7	12.3	13.1	126	87	112	36	29	32	440	312
156887	J-471	B.F.	2/ 8/54	1/19/54	--	43.6	42.0	42.7	14.3	13.2	13.8	133	102	117	33	28	30	368	272
156888	J-472	B.F.	2/ 8/54	1/19/54	--	43.6	42.0	42.5	14.4	13.4	13.8	134	91	113	34	28	31	432	272
156928	J-473	B.F.	2/15/54	2/ 5/54	--	42.2	40.4	41.4	14.0	13.2	13.6	122	85	106	34	29	31	352	264
156929	J-474	B.F.	2/15/54	2/ 5/54	--	42.2	40.6	41.6	14.1	13.0	13.6	120	91	107	33	29	31	360	280
Current Mill Average:								42.3			13.4			112			31		
Cumulative Mill Average:								42.8			13.8			107			32		
Mill Factor, %:								98.8			97.1			104.7			96.9		
Mill Index, %:								98.1			97.1			105.7			86.1		

TABLE XIII

Mill K--42-lb. Linerboard

156823	K-17	2/ 1/54	1/28/54	7	44.8	43.2	44.1	14.2	13.0	13.4	135	83	105	42	36	39	448	328
156889	K-18	2/ 8/54	1/ 5/54	7	44.6	41.4	43.1	13.8	12.9	13.3	125	81	105	42	34	37	408	304
156945	K-19	2/17/54	2/15/54	7	42.4	40.2	41.6	13.8	12.2	12.9	108	76	93	37	33	35	448	312
157008	K-20	2/24/54	2/20/54	7	44.2	41.6	43.0	13.5	12.0	12.8	122	88	106	42	34	38	432	336
Current Mill Average:					43.0		13.1		102		37		37		37		37	
Cumulative Mill Average:					42.9		12.9		99		36		36		36		36	
Mill Factor, %:					100.2		101.6		103.0		102.8		102.8		102.8		102.8	
Mill Index, %:					99.8		94.9		96.2		102.8		102.8		102.8		102.8	

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

TABLE XV

MI 11. M--42--1b. Linerboard

2	44.6	41.6	42.7	14.1	13.0	13.8	138	83	106	39	31	36	392	320	361 ^a	448	344	396 ^a
2	44.0	40.6	42.4	14.4	13.0	13.7	125	80	103	38	32	34	392	288	351 ^a	440	368	397 ^a
4	44.6	42.0	43.6	14.0	13.0	13.6	118	85	100	40	33	36	448	368	403 ^a	408	344	368 ^a
			42.9			13.7			103			35			372			387
			43.0			13.7			107			35			387			404
			99.8			100.0			96.3			100.0			96.1			95.8
			99.5			99.3			97.2			97.2			100.8			96.0

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIV

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954. (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting		G. E.	
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
						lb.	iv.	points	Av.	Strengh, p.s.i.	gage Min.	Puncture, units	Av.
<u>Mill L-42-lb. Linerboard</u>													
156828	I-243		2/ 1/54	1/22/54	1	44.0	42.0	43.2	13.9	12.7	13.2	122	88
156829	I-244		2/ 1/54	1/23/54	1	44.8	42.0	43.4	14.8	13.9	14.2	133	76
156926	I-245		2/13/54	1/26/54	1	44.8	42.0	43.7	15.5	13.2	14.5	145	101
156927	I-246		2/13/54	1/27/54	1	44.6	41.8	43.3	14.8	13.0	14.1	125	87
156990	I-247		2/22/54	2/ 2/54	1	44.4	42.4	43.6	14.2	13.0	13.7	122	91
156991	I-248		2/22/54	2/ 5/54	1	44.0	42.0	43.5	13.9	13.0	13.3	128	104
Current Mill Average:						43.5		13.8				111	
Cumulative Mill Average:						43.0		13.6				106	
Mill Factor, %:						101.2		101.5				104.7	
Mill Index, %						100.9		100.0				104.7	

TABLE XV

Mill M-42-lb. Linerboard

156812	M-217	W.	2/ 1/54	1/20/54	2	44.6	41.6	42.7	14.1	13.0	13.8	138	83	106	39	31	36	392	32
156967	M-218	W.	2/18/54	2/ 8/54	2	44.0	40.6	42.4	14.4	13.0	13.7	125	80	103	38	32	34	392	28
156968	M-219	W.	2/18/54	2/ 9/54	4	44.6	42.0	43.6	14.0	13.0	13.6	118	85	100	40	33	36	448	36
Current Mill Average:						42.9		13.7				103					35		
Cumulative Mill Average:						43.0		13.7				107					35		
Mill Factor, %:						99.8		100.0				96.3					100.0		
Mill Index, %:						99.5		99.3				97.2					97.2		

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i.gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In	Max.	Min.	Across						
<u>Mill N--42-lb. Linerboard</u>																		
54	44.2	42.0	43.1	12.2	11.4	11.8	122	100	109	44	38	41	432	304	366 ^a	448	384	420 ^a
54	44.6	43.2	43.9	14.0	12.8	13.6	121	88	104	42	35	39	400	296	354 ^a	464	352	405 ^a
54	44.0	43.8	44.0	12.4	11.8	12.1	127	90	108	44	36	39	400	328	367	472	376	419 ^a
			43.7			12.5			107			40			362			415
			42.6			12.3			107			33			338			380
			102.6			101.6			100.0			121.2			107.1			109.2
			101.4			90.6			100.9			111.1			98.1			103.0

TABLE XVII

Mill O-42-lb. Linerboard																			
54	3	43.0	40.0	41.4	12.9	11.2	12.1	129	100	113	37	33	35	384	280	337	384	320	361 ^a
54	3	43.2	41.2	41.9	13.1	11.7	12.4	119	82	108	39	33	36	376	288	343 ^a	416	320	380 ^a
54	3	43.4	41.2	42.0	13.6	12.0	12.7	120	91	106	39	32	36	400	304	349 ^a	440	320	379 ^a
54	3	42.0	40.0	41.2	12.5	11.6	12.2	125	84	109	37	33	35	376	280	327 ^a	384	320	356 ^a
54	3	42.8	40.8	41.9	12.8	12.1	12.4	124	95	109	39	34	36	352	320	330	400	344	377 ^a
				41.7			12.4			109			36			337			371
				41.5			12.2			109			34			340			371
				100.5			101.6			100.0			105.9			99.1			100.0
				96.8			89.9			102.8			100.0			91.3			92.1

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i.gage		G. E. Puncture, units						
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.					
<u>Mill N-42-lb. Linerboard</u>																		
156877	N-55	—	2/ 8/54	1/25/54	1	44.2	42.0	43.1	12.2	11.4	11.8	122	100	109	44	38	41	432
156878	N-56	W.F.S	2/ 8/54	1/28/54	1	44.6	43.2	43.9	14.0	12.8	13.6	121	88	104	42	35	39	400
156982	N-57	D.F.	2/19/54	2/12/54	1	44.0	43.8	44.0	12.4	11.8	12.1	127	90	108	44	36	39	400
Current Mill Average:								43.7			12.5			107			40	
Cumulative Mill Average:								42.6			12.3			107			33	
Mill Factor, %:								102.6			101.6			100.0			121.2	
Mill Index, %:								101.4			90.6			100.9			111.1	

TABLE XVII

Mill O--42-lb. Linerboard													
156813	O-26	W.F.	2/ 1/54	1/21/54	3	43.0	40.0	41.4	12.9	11.2	12.1	129	100
156814	O-27	W.F.	2/ 1/54	1/22/54	3	43.2	41.2	41.9	13.1	11.7	12.4	119	82
156815	O-28	W.F.	2/ 1/54	1/22/54	3	43.4	41.2	42.0	13.6	12.0	12.7	120	91
156930	O-29	W.F.	2/15/54	2/ 9/54	3	42.0	40.0	41.2	12.5	11.6	12.2	125	84
156931	O-30	W.F.	2/15/54	2/10/54	3	42.8	40.8	41.9	12.8	12.1	12.4	124	95
Current Mill Average:						41.7		12.4				109	
Cumulative Mill Average:						41.5		12.2				109	
Mill Factor, %:						100.5		101.6				100.0	
Mill Index, %:						96.8		89.9				102.8	

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE 1
SUMMARY OF INDIVIDUAL TEST RESULTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

Miscellaneous

Mill F--69-1b. Linerboard

72.0	70.0	71.2	21.1	20.0	20.5	179	150	162	74	64	70	704	512	613 ^a	784	640	687 ^a
------	------	------	------	------	------	-----	-----	-----	----	----	----	-----	-----	------------------	-----	-----	------------------

Mill E--90-lb. Linerboard

	93.2	89.6	91.6	28.0	26.0	26.9	185	125	154	110	880	688	800 ^a	1040	784	889 ^a
--	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	------------------	------	-----	------------------

one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (Continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units	
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
156932	E-59	--	2/15/54	2/12/54	2	50.6	48.2	49.8	15.9	13.0	14.5	137	90
<u>Mill E-44/46-lb. Drum Linerboard</u>													
								49.8					
								47.2					
								105.5					
Current Mill Average:								14.5					
Cumulative Mill Average:								14.4					
Mill Factor, %:								100.7					

MiscellaneousMill E-69-lb. Linerboard

156816	E-57	2/ 1/54	1/26/54	2	72.0	70.0	71.2	21.1	20.0	20.5	179	150	162	74	64	70	704	51
--------	------	---------	---------	---	------	------	------	------	------	------	-----	-----	-----	----	----	----	-----	----

Mill E-90-lb. Linerboard

156817	E-58	2/ 1/54	1/27/54	2	93.2	89.6	91.6	28.0	26.0	26.9	185	125	154	110	92	100	880	68
--------	------	---------	---------	---	------	------	------	------	------	------	-----	-----	-----	-----	----	-----	-----	----

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XIX, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIX

Mill Code	Preconditioning			Conditioning		
	R.H., %	Temp., °F.	Time, hr.	R.H., %	Temp., °F.	Time, hr.
A		None		30-59	72-81	--
B	75	70	0.5	50	70	192-376
C	50	73	24-48	50	73	24-48
D	30-32	77-78	8	50-52	72-73	16
E		None		53-59	76-78	--
F		None		48-53	71-73	48-200
G		None		50	73	24-38
H		None		50	73	24
I		None		48-52	69-80	--
J		None		50	73	0.5
K	50-55	71-73	24	40-60	66-71	--
L		None		40-51	68-76	--
M		None		40-46	71-72	--
N	50	72-73	24-29	50	72	24
O		None		50	73	2
E*		None		49	78	--

* Drum Linerboard

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XX and XXI, respectively. The comparison for the various mills is given in Tables XXII to XXXVI, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXXVII. In all the comparisons

given in Tables XX to XXXVII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XX and XXI indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XX shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XXI, the average differences shown for each test in Table XX have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XXI that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is three per cent for the current period. This maximum percentage variation agrees favorably with the corresponding variations for the previous periods. Further, it may be noted that the average basis weight results for Mills B, H, and J are higher than those for the Institute, whereas the results for Mills E, G, K, and O are the same, and the results for the other mills are lower. In general, the agreement between Institute and mill basis weight results is very good.

The maximum variation in caliper for the current period is ten per cent. Compared with the values for the Institute, the average result for Mills B and G are higher while the average results for Mills A and H are the same, and the average results for the other mills are lower.

The accord between Institute and mill caliper values is good with the exception of Mills E, L, and M.

It may be noted in Table XXI that the bursting strength results exhibit a maximum variation of eleven per cent for the current period. The average results for Mills A, E, F, K, L, M, and N are higher than those for the Institute, whereas the results for Mills B, H, J and O are lower and the results for Mills C, D, G, and I are the same. The agreement in bursting strength results is good with the exception of Mill M.

The G. E. puncture results exhibit a maximum variation of twenty-three per cent for the current period. Compared with the values for the Institute, the results for Mills A and C are higher, whereas the results for Mills B, E, F, H, I, and M are lower and the result for Mill J is the same. The agreement between the Institute and mill results is good for all mills except E, I, and M.

It may be seen in Tables XX and XXI that the average machine direction tear results for Mills B, C, I, and N are higher than those for the Institute whereas the results for the other mills are lower. The maximum variation for the current period is eighteen per cent. The differences encountered for Mills E, L, and M appear to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills B, C, D, F, I, K, N, and O are higher than those for the Institute whereas the average results for the other mills are lower. The maximum variation for the current period is thirteen per cent. Only the differences for Mills E and N appear to be excessive.

TABLE XX
SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

No. Samples Compared	Mills*														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	10	8	8	6	2	13	8	6	8	6	4	6	3	3	5
	<u>Basis Weight</u>														
Institute	43.6	43.1	44.2	43.2	43.4	43.7	43.4	42.8	42.4	42.3	43.0	43.5	42.9	43.7	41.7
Mill	42.9	43.2	43.9	42.8	43.4	43.5	43.4	43.4	42.3	42.8	43.0	42.8	41.5	43.4	41.7
Av. Diff.**	-0.7	+0.1	-0.3	-0.4	0.0	-0.2	0.0	+0.6	-0.1	+0.5	0.0	-0.7	-1.4	-0.3	0.0
Max. Diff.***	-1.3	+0.4	-0.6	-0.8	-0.5	-0.7	+0.4	+1.1	-0.9	+0.7	+0.5	-0.9	-1.5	-1.4	+0.3
	<u>Caliper</u>														
Institute	13.1	12.2	13.8	12.7	13.6	13.4	12.1	12.2	13.4	13.4	13.1	13.8	13.7	12.5	12.4
Mill	13.1	12.3	13.4	12.5	12.2	12.9	12.2	12.2	13.1	13.3	12.6	13.1	12.8	12.0	11.9
Av. Diff.**	0.0	+0.1	-0.4	-0.2	-1.4	-0.5	+0.1	0.0	-0.3	-0.1	-0.5	-0.7	-0.9	-0.5	-0.5
Max. Diff.***	+0.2	+0.3	-0.6	-0.5	-1.5	-0.9	+0.2	+0.1	-0.6	-0.5	-0.6	-1.1	-1.1	-0.7	-0.6
	<u>Bursting Strength</u>														
Institute	110	112	109	107	103	107	120	105	106	112	102	111	103	107	109
Mill	114	111	109	107	106	112	120	104	106	110	105	115	114	108	104
Av. Diff.**	+4	-1	0	0	+3	+5	0	-1	0	-2	+3	+4	+11	+1	-5
Max. Diff.***	+7	-3	+4	+4	+6	+8	+2	+4	+4	-5	+4	+8	+12	+5	-9

(Continued on next page.)

SUMMARY OF TEST RESULT COMPARISONS (Average Mill and Institute Results)

No. Samples Compared		Mills*														
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
10	8	33	29	35	37	34	40	31	32	33	31	37	36	35	40	36
		34	28	36	--	30	39	--	31	30	31	--	--	27	--	--
		+1	-1	+1	--	-4	-1	--	-1	-3	0	--	--	-8	--	--
		-5	-2	+3	--	-6	-2	--	-2	-5	+1	--	--	-9	--	--
<u>G. E. Puncture</u>																
<u>Tearing Strength, in.</u>																
		326	276	344	383	377	406	327	345	323	335	369	344	372	362	337
		310	291	346	363	310	392	308	320	349	310	356	308	340	375	321
		-16	+15	+2	-20	-67	-14	-19	-25	+26	-25	-13	-36	-32	+13	-16
		-29	+37	-53	-35	-71	-35	-33	-34	+42	-45	-38	-65	-58	+63	-24
<u>Tearing Strength, across</u>																
		368	346	392	394	393	423	365	377	385	383	379	387	387	415	371
		358	358	398	397	342	435	347	359	415	379	392	375	363	467	377
		-10	+12	+6	+3	-51	+12	-18	-18	+30	-4	+13	-12	-24	+52	+6
		-27	+30	-42	+22	-51	+34	-41	-24	+70	-23	+64	-30	-54	+84	+12

* Comparison based on averages involves only those samples on which mill test data were submitted.

*** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XXI

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS

	Basis		Average Differences, %		Tearing Strength	
	Weight	Caliper	Bursting Strength	G. E. Puncture	in	across
Mill A						
Current period	-2	0	+4	+3	-5	-3
79th period	-0.5	+0.8	+2	+9	-7	-2
78th period	-2	-2	+0.9	+9	-8	-3
Mill B						
Current period	+0.2	+0.8	-0.9	-3	+5	+3
79th period	0	-0.8	0	-7	-4	+2
78th period	-2	-2	+0.9	-7	-7	-3
Mill C						
Current period	-0.7	-3	0	+3	+0.6	+2
79th period	-0.5	-3	0	-3	-14	-5
78th period	-0.7	-2	0	+3	-5	+3
Mill D						
Current period	-0.9	-2	0	--	-5	+0.8
79th period	+0.5	0	-5	--	+7	+7
78th period	-0.2	-0.8	-5	--	+1	+5
Mill E						
Current period	0	-10	+3	-12	-18	-13
79th period	--	--	--	--	--	--
78th period	0	-8	-3	+3	-12	-8
Mill F						
Current period	-0.5	-4	+5	-2	-3	+3
79th period	-0.7	-4	+5	-3	-8	-5
78th period	-2	-5	+4	-3	-10	-6
Mill G						
Current period	0	+0.8	0	--	-6	-5
79th period	0	-0.8	-0.8	-6	-7	-3
78th period	-0.7	-2	+0.8	-9	-5	-3
Mill H						
Current period	+1	0	-1	-3	-7	-5
79th period	--	--	--	--	--	--
78th period	+0.2	-2	-0.9	0	-7	-8
Mill I						
Current period	-0.2	-2	0	-9	+8	+8
79th period	-0.2	0	+2	+3	+6	+7
78th period	-0.7	+2	-0.9	+3	+8	+11
Mill J						
Current period	+1	-0.7	-2	0	-7	-1
79th period	+0.7	0	-3	+3	-8	+6
78th period	+0.2	+2	-0.9	+6	0	+10
Mill K						
Current period	0	-4	+3	--	-4	+3
79th period	-0.5	-2	+2	--	-13	-6
78th period	--	--	--	--	--	--
Mill L						
Current period	-2	-5	+4	--	-10	-3

	Weight	Caliper	Strength	Puncture	in	Strength across
Mill A						
Current period	-2	0	+4	+3	-5	-3
79th period	-0.5	+0.8	+2	+9	-7	-2
78th period	-2	-2	+0.9	+9	-8	-3
Mill B						
Current period	+0.2	+0.8	-0.9	-3	+5	+3
79th period	0	-0.8	0	-7	-4	+2
78th period	-2	-2	+0.9	-7	-7	-3
Mill C						
Current period	-0.7	-3	0	+3	+0.6	+2
79th period	-0.5	-3	0	-3	-14	-5
78th period	-0.7	-2	0	+3	-5	+3
Mill D						
Current period	-0.9	-2	0	--	-5	+0.8
79th period	+0.5	0	-5	--	+7	+7
78th period	-0.2	-0.8	-5	--	+1	+5
Mill E						
Current period	0	-10	+3	-12	-18	-13
79th period	--	--	--	--	--	--
78th period	0	-8	-3	+3	-12	-8
Mill F						
Current period	-0.5	-4	+5	-2	-3	+3
79th period	-0.7	-4	+5	-3	-8	-5
78th period	-2	-5	+4	-3	-10	-6
Mill G						
Current period	0	+0.8	0	--	-6	-5
79th period	0	-0.8	-0.8	-6	-7	-3
78th period	-0.7	-2	+0.8	-9	-5	-3
Mill H						
Current period	+1	0	-1	-3	-7	-5
79th period	--	--	--	--	--	--
78th period	+0.2	-2	-0.9	0	-7	-8
Mill I						
Current period	-0.2	-2	0	-9	+8	+8
79th period	-0.2	0	+2	+3	+6	+7
78th period	-0.7	+2	-0.9	+3	+8	+11
Mill J						
Current period	+1	-0.7	-2	0	-7	-1
79th period	+0.7	0	-3	+3	-8	+6
78th period	+0.2	+2	-0.9	+6	0	+10
Mill K						
Current period	0	-4	+3	--	-4	+3
79th period	-0.5	-2	+2	--	-13	-6
78th period	--	--	--	--	--	--
Mill L						
Current period	-2	-5	+4	--	-10	-3
79th period	-2	-5	+3	--	-19	-6
78th period	-2	-5	+1	--	-10	-3
Mill M						
Current period	-3	-7	+11	-23	-9	-6
79th period	-4	-7	+7	-19	-8	-9
78th period	-4	-8	+8	-11	+1	-0.5
Mill N						
Current period	-0.7	-4	+0.9	--	+4	+13
79th period	-0.2	-5	+7	--	-2	+8
78th period	-1	-3	-2	--	-2	+7
Mill O						
Current period	0	-4	-5	--	-5	+2
79th period	-0.2	-2	-3	--	-4	-0.3
78th period	--	--	--	--	--	--

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954

Institute Data versus Mill Data

IPC	Basis Weight, lb.	IPC Mill Diff.	Caliper, points	Bursting		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	G. E.		IPC Mill Diff.	IPC Mill Diff.	Elmendorf Tear,		IPC Mill Diff.	
				IPC	Strength, p.s.i. gage				Puncture, units	In			g./sheet	Across		
																IPC
<u>Mill A--42-lb. Linerboard</u>																
43.4	42.5	-0.9	12.7	12.7	110	115	+5	31	33	+2	331a	311	-20	360a	333	-27
43.1	42.8	-0.3	12.9	13.1	105	111	+6	36	39	+3	360	352	-8	382a	393	+11
44.0	43.0	-1.0	13.5	13.6	108	115	+7	30	33	+3	323a	332	+9	372a	357	-15
44.1	42.8	-1.3	13.7	13.6	112	115	+3	31	33	+2	343a	327	-16	371a	354	-17
44.0	43.4	-0.6	12.9	13.0	115	115	0	33	34	+1	313a	286	-27	373a	361	-12
43.9	43.4	-0.5	12.8	12.8	114	117	+3	32	33	+1	309a	280	-29	363a	353	-10
43.5	42.7	-0.8	12.9	13.0	110	113	+3	33	34	+1	303a	288	-15	364a	349	-15
43.2	42.7	-0.5	12.8	12.8	111	112	+1	33	33	0	311a	291	-20	350a	353	+3
43.4	42.5	-0.9	13.2	13.0	112	113	+1	36	35	-1	319a	308	-11	376a	368	-8
43.2	42.8	-0.4	13.2	13.4	107	111	+4	35	30	-5	346a	328	-18	372a	364	-8
43.6	42.9	-0.7	13.1	13.1	110	114	+4	33	34	+1	326	310	-16	368	358	-10

ings for one or more specimens which tore beyond the 3/8-inch limit

data are calculated from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.		
<u>Mill A--42-lb. Linerboard</u>																
156810	A-515	WF1S	1/22/54	1	43.4	42.5	-0.9	12.7	12.7	0.0	110	115	31	33	+2	331a
156811	A-516	WF1S	1/12/54	2	43.1	42.8	-0.3	12.9	13.1	+0.2	105	111	36	39	+3	360
156818	A-517	WF1S	1/21/54	2	44.0	43.0	-1.0	13.5	13.6	+0.1	108	115	30	33	+3	323a
156819	A-518	WF1S	1/21/54	2	44.1	42.8	-1.3	13.7	13.6	-0.1	112	115	31	33	+2	343a
156854	A-519	WF1S	1/24/54	1	44.0	43.4	-0.6	12.9	13.0	+0.1	115	115	33	34	+1	313a
156855	A-520	WF1S	1/24/54	1	43.9	43.4	-0.5	12.8	12.8	0.0	114	117	32	33	+1	309a
156883	A-521	WF1S	2/ 1/54	1	43.5	42.7	-0.8	12.9	13.0	+0.1	110	113	33	34	+1	303a
156884	A-522	WF1S	2/ 1/54	1	43.2	42.7	-0.5	12.8	12.8	0.0	111	112	33	33	0	311a
156957	A-523	WF1S	2/ 7/54	2	43.4	42.5	-0.9	13.2	13.0	-0.2	112	113	36	35	-1	319a
156958	A-524	WF1S	2/11/54	2	43.2	42.8	-0.4	13.2	13.4	+0.2	107	111	35	30	-5	346a
Current Mill Average:					43.6	42.9	-0.7	13.1	13.1	0.0	110	114	33	34	+1	326

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIII
SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)
Institute Data versus Mill Data

Basis Weight, lb.	IPC	Mill Diff.	Caliper, points	IPC	Mill Diff.	Bursting Strength, p.s.i. gage	IPC	Mill Diff.	G. E. Puncture, units	IPC	Mill Diff.	Elmendorf Tear, g./sheet					
												In	Across				
														IPC	Mill Diff.		
Mill B--42-lb. Linerboard																	
43.1	42.9	-0.2	12.4	12.4	0.0	112	110	-2	30	28	-2	280a	280	0	345a	367	+22
42.8	43.2	+0.4	12.4	12.4	+0.1	114	112	-2	28	29	+1	273a	292	+19	351a	358	+7
43.4	43.4	0.0	12.3	12.3	0.0	111	112	+1	29	28	-1	283a	299	+16	348a	368	+20
43.2	43.1	-0.1	12.5	12.2	+0.3	111	111	0	28	29	+1	267	304	+37	351a	380	+29
43.2	43.3	+0.1	12.3	12.2	-0.1	114	111	-3	29	27	-2	276a	293	+17	330a	360	+30
43.2	43.3	+0.1	12.2	12.1	-0.1	114	111	-3	29	27	-2	277a	284	+7	350a	349	-1
43.1	43.1	0.0	12.2	12.2	0.0	112	110	-2	28	27	-1	277a	291	+14	344a	342	-2
43.1	43.1	0.0	12.2	12.2	0.0	112	112	-0	28	27	-1	277a	289	+12	352a	341	-11
43.1	43.2	+0.1	12.3	12.2	+0.1	112	111	-1	29	28	-1	276	291	+15	346	358	+12
TABLE XXIV																	
Mill C--42-lb. Linerboard																	
43.5	43.0	-0.5	13.4	13.9	-0.5	105	107	+2	34	37	+3	337a	319	-18	375a	368	-7
43.8	43.2	-0.6	13.4	13.8	-0.4	108	107	-1	34	33	-1	336a	283	-53	384a	342	-42
45.5	45.3	-0.2	13.8	13.9	-0.1	110	107	-3	36	38	+2	333	354	+21	404a	407	+3
45.7	45.3	-0.4	13.7	14.2	-0.5	106	106	0	36	37	+1	341a	379	+38	388a	424	-36
45.8	45.6	-0.2	13.5	14.1	-0.6	108	107	-1	36	37	+1	365a	355	-10	394a	411	+17
42.7	42.7	0.0	13.0	13.4	-0.4	110	114	+4	34	34	0	349	371	+22	392a	433	+41
42.6	42.6	0.0	13.0	13.5	-0.5	113	111	-2	34	34	0	331a	362	+31	377a	401	+24
43.9	43.5	-0.4	13.0	13.5	-0.5	112	110	-2	36	36	0	356	340	-16	423a	402	-21
44.2	43.9	-0.3	13.4	13.8	-0.4	109	109	0	35	36	+1	344	346	+2	392	398	+6

TABLE XXIV

Mill C--42-lb. Linerboard

43.5	43.0	-0.5	13.9	13.4	105	+2	34	+3	337a	319	-18	375a	368 -7
43.8	43.2	-0.6	13.8	13.4	108	-1	34	-1	336a	283	-53	384a	342 -42
45.5	45.3	-0.2	13.9	13.8	110	-3	36	+2	333	354	+21	404a	407 +3
45.7	45.3	-0.4	14.2	13.7	106	0	36	+1	341a	379	+38	388a	424 -36
45.8	45.6	-0.2	14.1	13.5	108	-1	36	+1	365a	355	-10	394a	411 +17
42.7	42.7	0.0	13.4	13.0	110	+4	34	0	349	371	+22	392a	433 +41
42.6	42.6	0.0	13.5	13.0	113	-2	34	0	331a	362	+31	377a	401 +24
43.9	43.5	-0.4	13.5	13.0	112	-2	36	0	356	340	-16	423a	402 -21
44.2	43.9	-0.3	13.8	13.4	109	0	35	+1	344	346	+2	392	398 +6

ings for one or more specimens which tore beyond the 3/8-inch limit.
data are calculated from the totals of the individual readings.

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continue)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting Strength,		G. E. Puncture,						
					IPC	lb.	Mill	Diff.	IPC	points	IPC	p.s.i. gage	IPC	units			
															IPC	Mill	Diff.
Mill B--42-lb. Linerboard																	
156830	B-943	WF1S	1/15/54	1	43.1	42.9	-0.2	12.4	12.4	0.0	112	110	-2	30	28	280a	28
156831	B-944	WF1S	1/15/54	1	42.8	43.2	+0.4	12.3	12.4	+0.1	114	112	-2	28	29	273a	29
156832	B-945	WF1S	1/15/54	1	43.4	43.4	0.0	12.3	12.3	0.0	111	112	+1	29	28	283a	29
156833	B-946	WF1S	1/15/54	1	43.2	43.1	-0.1	12.2	12.5	+0.3	111	111	0	28	29	267	30
156850	B-947	WF1S	1/15/54	1	43.2	43.3	+0.1	12.3	12.2	-0.1	114	111	-3	29	27	276a	29
156851	B-948	WF1S	1/15/54	1	43.2	43.3	+0.1	12.2	12.1	-0.1	114	111	-3	29	27	277a	28
156852	B-949	WF1S	1/15/54	1	43.1	43.1	0.0	12.2	12.2	0.0	112	110	-2	28	27	277a	29
156853	B-950	WF1S	1/15/54	1	43.1	43.1	0.0	12.2	12.2	0.0	112	112	-0	28	27	277a	28
Current Mill Average:					43.1	43.2	+0.1	12.2	12.3	+0.1	112	111	-1	29	28	276	29

TABLE XXIV

Mill C--42-lb. Linerboard

156890	C-539	W.F.	2/ 2/54	1	43.5	43.0	-0.5	13.9	13.4	-0.5	105	107	+2	34	37	337a	319
156891	C-540	W.F.	2/ 2/54	1	43.8	43.2	-0.6	13.8	13.4	-0.4	108	107	-1	34	33	336a	283
156961	C-541	W.F.	2/ 7/54	1	45.5	45.3	-0.2	13.9	13.8	-0.1	110	107	-3	36	38	333	354
156962	C-542	W.F.	2/ 7/54	1	45.7	45.3	-0.4	14.2	13.7	-0.5	106	106	0	36	37	341a	379
156963	C-543	W.F.	2/ 7/54	1	45.8	45.6	-0.2	14.1	13.5	-0.6	108	107	-1	36	37	365a	355
156965	C-544	W.F.	2/ 8/54	1	42.7	42.7	0.0	13.4	13.0	-0.4	110	114	+4	34	34	349	371
156965	C-545	W.F.	2/ 8/54	1	42.6	42.6	0.0	13.5	13.0	-0.5	113	111	-2	34	34	331a	362
156966	C-546	W.F.	2/10/54	1	43.9	43.5	-0.4	13.5	13.0	-0.5	112	110	-2	36	36	356	340
Current Mill Average:					44.2	43.9	-0.3	13.8	13.4	-0.4	109	109	0	35	36	344	346

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet	IPC		IPC		IPC		IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC	IPC
----------------------	--------------------	--------------------------------------	-----------------------------	-----------------------------	-----	--	-----	--	-----	--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

TABLE XXVI

Mill E--42-lb. Linerboard

44.5	44	-0.5	13.8	12.3	-1.5	102	108	+6	36	30	-6	370a	299	-71	390a	339	-51
42.3	42.7	+0.4	13.3	12.1	-1.2	103	104	+1	32	31	-1	384a	321	-63	396a	346	-50
43.4	43.4	0.0	13.6	12.2	-1.4	103	106	+3	34	30	-4	377	310	-67	393	342	-51

gs for one or more specimens which tore beyond the 3/8-inch limit.

data are calculated from the totals of the individual readings.

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (contin

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.	IPC	Diff.	Caliper, points	IPC	Diff.	Bursting Strength, p.s.i. gage	IPC	Diff.	IPC	G. E. Puncture, units	IPC
156808	D-733	W.F.	1/22/54	4	43.0	43.3	+0.3	12.1	12.2	+0.1	103	101	-2	35	373a	
156809	D-734	W.F.	1/24/54	-	42.5	42.2	-0.3	12.6	12.1	-0.5	98	99	+1	35	381a	
156999	D-735	W.F.	2/ 6/54	4	43.1	42.8	-0.3	12.7	12.3	-0.4	110	111	+1	36	377a	
157000	D-736	W.F.	2/ 7/54	4	42.2	41.9	-0.3	12.6	12.3	-0.3	112	112	0	35	377a	
156985	D-737	W.F.	2/13/54	4	44.1	43.3	-0.8	13.2	13.0	-0.2	106	110	+4	41	396a	
156986	D-738	W.F.	2/14/54	4	44.2	43.5	-0.7	13.0	12.9	-0.1	111	109	-2	39	393a	
Current Mill Average:					43.2	42.8	-0.4	12.7	12.5	-0.2	107	107	0	37	383	

TABLE XXVI

Mill E-42-lb. Linerboard

156987	E-60	—	2/18/54	2	44.5	44	-0.5	13.8	12.3	-1.5	102	108	+6	36	30	-6	370a
157017	E-61	—	2/23/54	2	42.3	42.7	+0.4	13.3	12.1	-1.2	103	104	+1	32	31	-1	384a
Current Mill Average:					43.4	43.4	0.0	13.6	12.2	-1.4	103	106	+3	34	30	-4	377

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

Mch. No.	Basis Weight, lb.	IPC Mill Diff.	Caliper, points	IPC Mill Diff.	Bursting Strength, P.s.i., gage I-C Mill Diff.	G. E. Puncture, units IPC Mill Diff.	Elmendorf Tear, g./sheet IPC Mill Diff.	Across Mill Diff.										
<u>Mill F--42-lb. Linerboard</u>																		
-	44.5	44.4	-0.1	13.7	13.2	-0.5	105	108	+3	41	41	0	421a	403	-18	422a	431	+9
-	44.1	43.4	-0.7	13.4	13.1	-0.3	113	114	+1	39	38	-1	405a	383	-22	411a	419	+8
-	43.6	43.5	-0.1	13.3	12.8	-0.5	110	115	+5	40	39	-1	403a	392	-11	416a	425	+9
-	43.6	43.2	-0.4	12.6	12.4	-0.2	114	120	+6	40	38	-2	385a	389	+4	434a	453	+19
-	43.4	43.8	+0.4	13.1	12.7	-0.4	110	111	+1	41	40	-1	401a	387	-14	415a	444	+29
-	43.0	43.0	-0.1	13.2	12.9	-0.3	105	112	+7	41	39	-2	399a	392	-7	418a	436	+18
-	42.9	43.2	+0.3	13.5	13.0	-0.5	104	108	+4	39	38	-1	413a	387	-26	428a	428	0
-	44.1	43.8	-0.3	13.7	13.4	-0.3	111	118	+7	41	39	-2	393a	384	-9	445a	417	-28
-	43.1	43.0	-0.1	13.5	12.9	-0.6	110	118	+8	39	38	-1	390a	381	-9	409a	429	+20
-	44.0	43.3	-0.7	13.8	13.1	-0.7	107	110	+3	42	42	0	426a	415	-11	442a	455	+13
-	44.3	43.9	-0.4	13.6	13.3	-0.3	103	110	+7	40	40	0	430a	403	-27	428a	432	+4
-	43.6	43.0	-0.6	13.7	12.8	-0.9	98	105	+7	42	42	0	398a	396	-2	423a	457	+34
-	44.3	44.0	-0.3	13.3	12.8	-0.5	105	111	+6	38	39	+1	420a	385	-35	408a	435	+27
-	43.7	43.5	-0.2	13.4	12.9	-0.5	107	112	+5	40	39	-1	406	392	-14	423	435	+12

Readings for one or more specimens which tore beyond the 3/8-inch limit.

3e" data are calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data																		
File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight,			Caliper,		Bursting Strength,		G. E. Puncture,		Elme				
					lb.	Diff.	IPC	points	Diff.	P.S.I.	gage	IPC	units		Diff.			
Mill F-42-1b. Linerboard																		
156820	F-96	W.F.	12/30/53	-	44.5	44.4	-0.1	13.7	13.2	-0.5	105	108	+3	41	41	0	421a	403
156821	F-97	W.F.	12/30/53	-	44.1	43.4	-0.7	13.4	13.1	-0.3	113	114	+1	39	38	-1	405a	383
156822	F-98	W.F.	12/30/53	-	43.6	43.5	-0.1	13.3	12.8	-0.5	110	115	+5	40	39	-1	403a	392
156824	F-99	W.B.	12/30/53	-	43.6	43.2	-0.4	12.6	12.4	-0.2	114	120	+6	40	38	-2	385a	389
156825	F-100	W.F.	12/30/53	-	43.4	43.8	+0.4	13.1	12.7	-0.4	110	111	+1	41	40	-1	401a	387
156867	F-101	W.F.	12/30/53	-	43.0	43.0	-0.1	13.2	12.9	-0.3	105	112	+7	41	39	-2	399a	392
156868	F-102	W.F.	-----	-	42.9	43.2	+0.3	13.5	13.0	-0.5	104	108	+4	39	38	-1	413a	387
156933	F-1	W.F.	1/12/54	-	44.1	43.8	-0.3	13.7	13.4	-0.3	111	118	+7	41	39	-2	393a	384
156934	F-2	W.F.	1/12/54	---	43.1	43.0	-0.1	13.5	12.9	-0.6	110	118	+8	39	38	-1	390a	381
156935	F-3	W.F.	2/1/54	-	44.0	43.3	-0.7	13.8	13.1	-0.7	107	110	+3	42	42	0	426a	415
156936	F-4	W.F.	2/4/54	---	44.3	43.9	-0.4	13.6	13.3	-0.3	103	110	+7	40	40	0	430a	403
156937	F-5	W.F.	2/5/54	-	43.6	43.0	-0.6	13.7	12.8	-0.9	98	105	+7	42	42	0	398a	396
156992	F-6	W.F.	2/9/54	-	44.3	44.0	-0.3	13.3	12.8	-0.5	105	111	+6	38	39	+1	420a	385
Current Mill Average:					43.7	43.5	-0.2	13.4	12.9	-0.5	107	112	+5	40	39	-1	406	392

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet				
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	In	Across
<u>Mill G-42-1b. Linerboard</u>																
42.8	43.0	+0.2	12.0	12.1	+0.1	126	124	-2	28	29	+1	319a	311	-8	366a	345
42.9	43.1	+0.2	12.1	12.1	0.0	125	124	-1	30	27	-3	326a	302	-24	368a	327
41.5	41.3	-0.2	11.9	11.9	0.0	119	119	0	28	Mill		302a	287	-15	352a	337
45.8	45.5	-0.3	12.7	12.6	-0.1	125	123	-2	32	tester		334a	320	-14	351a	355
43.2	42.8	-0.4	12.7	12.6	-0.1	117	119	+2	33	being		333a	305	-28	373a	333
45.2	45.0	-0.2	12.9	13.0	+0.1	113	114	+1	32	recon-		350a	317	-33	373a	365
42.4	42.4	0.0	10.8	11.0	+0.2	118	119	+1	30	ditioned		311a	294	-17	356a	345
43.8	44.1	+0.3	11.9	11.9	0.0	118	120	+2	33			337a	326	-11	384a	366
43.4	43.4	0.0	12.1	12.2	+0.1	120	120	0	31			327	308	-19	365	347
																-18

TABLE XXIX

Mill H--42-1b. Linerboard

42.8	43.4	+0.6	12.2	12.2	0.0	105	104	-1	32	31	-1	345	320	-25	377	359	-18
42.6	43.7	+1.1	11.9	12.0	+0.1	107	103	-4	32	31	-1	336a	322	-14	376a	361	-15
43.0	43.2	+0.2	12.0	12.1	+0.1	107	108	+1	32	31	-1	348a	329	-19	389a	365	-24
42.9	43.2	+0.3	12.0	12.1	+0.1	106	103	-3	32	30	-2	333a	302	-31	372a	350	-22
42.7	43.2	+0.5	12.2	12.2	0.0	100	104	+4	32	31	-1	354a	322	-32	379a	357	-22
43.3	43.8	+0.5	12.8	12.9	+0.1	107	105	-2	35	33	-2	357a	341	-16	380a	371	-9
42.3	43.2	+0.9	12.0	12.0	0.0	102	103	+1	31	30	-1	339a	305	-34	367a	351	-16
42.6	43.7	+1.1	11.9	12.0	+0.1	107	103	-4	32	31	-1	336a	322	-14	376a	361	-15

is for one or more specimens which tore beyond the 3/8-inch limit. Data are calculated from the totals of the individual readings.

TABLE XXVIII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.	IPC Mill Diff.	Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i.	Gage	IPC Mill Diff.	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	IPC Mill Diff.	Elmer In G.
156848	G-560	W.F.	1/23/54	--	42.8	43.0	+0.2	12.0	12.1	+0.1	126	124	-2	28	29	+1
156849	G-561	W.F.	1/23/54	--	42.9	43.1	+0.2	12.1	12.1	0.0	125	124	-1	30	27	-3
156856	G-562	W.F.	1/29/54	--	41.5	41.3	-0.2	11.9	11.9	0.0	119	119	0	28	28	Mill
156857	G-563	W.F.	1/29/54	--	45.8	45.5	-0.3	12.7	12.6	-0.1	125	123	-2	32	tester	
156881	G-564	W.F.	2/ 2/54	--	43.2	42.8	-0.4	12.7	12.6	-0.1	117	119	+2	33	being	
156882	G-565	W.F.	2/ 2/54	--	45.2	45.0	-0.2	12.9	13.0	+0.1	113	114	+1	32	recon-	
156995	G-566	W.F.	2/16/54	--	42.4	42.4	0.0	10.8	11.0	+0.2	118	119	+1	30	ditioned	
156996	G-567	W.F.	2/16/54	--	43.8	44.1	+0.3	11.9	11.9	0.0	118	120	+2	33		
Current Mill Average:					43.4	43.4	0.0	12.1	12.2	+0.1	120	120	0	31		

TABLE XXIX

Mill H-42-1b. Linerboard

156885	H-431	WFLS	2/ 1/54	2	43.0	43.2	+0.2	12.0	12.1	+0.1	107	108	+1	32	31	-1	348a	329	-19
156886	H-432	WFLS	2/ 2/54	2	42.9	43.2	+0.3	12.0	12.1	+0.1	106	103	-3	32	30	-2	333a	302	-31
156959	H-433	WFLS	2/ 7/54	2	42.7	43.2	+0.5	12.2	12.2	0.0	100	104	+4	32	31	-1	354a	322	-32
156960	H-434	WFLS	2/ 8/54	2	43.3	43.8	+0.5	12.8	12.9	+0.1	107	105	-2	35	33	-2	357a	341	-16
157018	H-435	WFLS	2/15/54	2	42.3	43.2	+0.9	12.0	12.0	0.0	102	103	+1	31	30	-1	339a	305	-34
157019	H-436	WFLS	2/16/54	2	42.6	43.7	+1.1	11.9	12.0	+0.1	107	103	-4	32	31	-1	336a	322	-14
Current Mill Average:					42.8	43.4	+0.6	12.2	12.2	0.0	105	104	-1	32	31	-1	345	320	-25

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

	Bursting Strength,	G. E. Puncture,	Elmendorf Tear, g./sheet
Basis Weight,			
Caliper,			

FOIA b 7 - D
Project 1108-B
Foundationer Kraft Board Institute, Inc.

Mill J-42-1b, Linerboard

Page 34
Progress Report 80

data are calculated from the totals of the individual readings.

TABLE XXX

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954. (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting Strength, p.s.i.	Gage	Puncture, units	IPC Mill Diff.	IPC Mill				
					lb.	Diff.	IPC.	Mill						Diff.			
<u>Mill I--42-lb. Linerboard</u>																	
156858	I-358	W.F.	1/12/54	1	42.8	-0.5	12.8	13.1	+0.3	110	109	-1	31	29	-2	321a	348
156859	I-359	W.F.	1/12/54	1	42.0	+0.3	12.8	13.2	+0.4	106	107	+1	30	28	-2	317a	305
156865	I-364	WFLS	2/ 1/54	1	43.6	-0.8	13.3	12.7	-0.6	103	106	+3	35	32	-3	349a	387
156866	I-365	WFLS	2/ 2/54	1	43.6	-0.9	13.3	12.7	-0.6	102	106	+4	36	31	-5	333a	375
156879	I-366	---	2/ 3/54	1	41.9	+0.2	13.5	13.2	-0.3	106	106	0	31	31	0	323a	356
156880	I-367	---	2/ 3/54	1	41.8	+0.3	13.6	13.1	-0.5	107	107	0	32	30	-2	315a	351
156993	I-368	WFLS	2/17/54	1	41.9	+0.4	13.8	13.4	-0.4	106	106	0	33	30	-3	321a	343
157016	I-369	WFLS	2/19/54	1	41.9	+0.3	13.8	13.4	-0.4	105	105	0	32	30	-2	307	329

Current Mill Average:

42.4	42.3	-0.1	13.4	13.1	-0.3	106	106	0	33	30	-3	323	349
------	------	------	------	------	------	-----	-----	---	----	----	----	-----	-----

TABLE XXXI

Mill J--42-lb. Linerboard

156826	J-469	B.F.	1/12/54	-	42.8	43.2	+0.4	12.8	12.9	+0.1	115	110	-5	32	33	+1	355a	345
156827	J-470	B.F.	1/12/54	-	42.8	43.2	+0.4	13.1	13.0	-0.1	112	110	-2	32	33	+1	355a	343
156887	J-471	B.F.	1/19/54	-	42.7	43.4	+0.7	13.8	13.6	-0.2	117	114	-3	30	31	+1	322a	306
156888	J-472	B.F.	1/19/54	-	42.5	43.0	+0.5	13.8	13.3	-0.5	113	116	+3	31	31	0	333a	297
156928	J-473	B.F.	2/ 5/54	-	41.4	42.1	+0.7	13.6	13.2	-0.4	106	106	0	31	30	-1	317a	280
156929	J-474	B.F.	2/ 5/54	-	41.6	42.2	+0.6	13.6	13.7	+0.1	107	104	-3	31	30	-1	331a	286
Current Mill Average:					42.3	42.8	+0.5	13.4	13.3	-0.1	112	110	-2	31	31	0	335	310

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

Basis Weight, lb.	IPC Mill Diff.	Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	Elmendorf Tear, g./sheet	IPC Mill Diff.	Across Diff.

Mill K--42-1b. Linerboard

44.1	43.8	-0.3	13.4	12.9	-0.5	105	107	+2	39	375a	350	-25	380a	394	+14
43.1	43.2	+0.1	13.3	12.7	-0.6	105	108	+3	37	339a	336	-3	380a	395	+15
41.6	42.1	+0.5	12.9	12.5	-0.4	93	97	+4	35	381a	396	+15	351a	415	+64
43.0	42.8	-0.2	12.8	12.2	-0.6	106	108	+2	38	382a	344	-38	407a	363	-44
43.0	43.0	0.0	13.1	12.6	-0.5	102	105	+3	37	369	356	-13	379	392	+13

TABLE XXXIII

Mill L--42-1b. Linerboard

43.2	42.7	-0.5	13.2	12.7	-0.5	107	115	+8	34	343a	324	-19	378a	363	-15
43.4	42.5	-0.9	14.2	13.1	-1.1	108	108	0	35	323a	272	-51	375a	358	-17
43.7	42.9	-0.8	14.5	13.8	-0.7	119	116	-3	39	375a	321	-54	421a	391	-30
43.3	42.6	-0.7	14.1	13.1	-1.0	105	110	+5	35	335a	270	-65	370a	355	-15
43.6	43.3	-0.3	13.7	13.0	-0.7	110	116	+6	36	341a	340	-1	384a	397	+13
43.5	42.6	-0.9	13.3	12.8	-0.5	119	123	+4	35	345a	319	-26	395a	388	-7
43.5	42.8	-0.7	13.8	13.1	-0.7	111	115	+4	36	344	308	-36	387	375	-12

ings for one or more specimens which tore beyond the 3/8-inch limit.

" data are calculated from the totals of the individual readings.

TABLE XXXII

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continuu

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.	IPC Mill Diff.	Caliper, points	IPC Mill Diff.	Bursting Strength, P.s.i. gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	IPC M. 11	E
156823	K-17		1/28/54	7	44.1	-0.3	13.4	-0.5	105	107	+2	39	375a	350
156889	K-18		1/ 5/54	7	43.1	+0.1	13.3	-0.6	105	108	+3	37	339a	336
156945	K-19		2/15/54	7	41.6	+0.5	12.9	-0.4	93	97	+4	35	381a	396
157008	K-20		2/20/54	7	43.0	-0.2	12.8	-0.6	106	108	+2	38	382a	344
Current Mill Average:					43.0	0.0	13.1	-0.5	102	105	+3	37	369	356

TABLE XXXIII

Mill L--42-lb. Linerboard

156828	L-243		1/22/54	1	43.2	-0.5	13.2	-0.5	107	115	+8	34	343a	324
156829	L-244		1/23/54	1	43.4	-0.9	14.2	-1.1	108	108	0	35	323a	272
156926	L-245		1/26/54	1	43.7	-0.8	14.5	-0.7	119	116	-3	39	375a	321
156927	L-246		1/27/54	1	43.3	-0.7	14.1	-1.0	105	110	+5	35	335a	270
156990	L-247		2/ 2/54	1	43.6	-0.3	13.7	-0.7	110	116	+6	36	341a	340
156991	L-248		2/ 5/54	1	43.5	-0.9	13.3	-0.5	119	123	+4	35	345a	319
Current Mill Average:					43.5	-0.7	13.8	-0.7	111	115	+4	36	344	308

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXIV

SUMMARY OF 1 INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

h. o. IPC	Basis Weight, lb.	Mill Diff.	IPC	Caliper, points	Mill Diff.	IPC	Bursting Strength, p.s.i. ^{gage}	Mill Diff.	IPC	G. E. Puncture, units	IPC	Mill Diff.	IPC	In Diff.	IPC	Elmendorf Tear, g./sheet	IPC	Across Mill Diff.

Mill M -- 42-lb. Linerboard

42.7	41.6	-1.1	13.8	13.1	-0.7	106	118	+12	36	29	-7	361 ^a	373	+12	396 ^a	405	+9
42.4	41.0	-1.4	13.7	12.6	-1.1	103	111	+8	34	25	-9	351 ^a	301	-50	397 ^a	343	-54
43.6	42.1	-1.5	13.6	12.6	-1.0	100	111	+11	36	27	-9	403 ^a	345	-58	368 ^a	340	-28
42.9	41.5	-1.4	13.7	12.8	-0.9	103	114	+11	35	27	-8	372	340	-32	387	363	-24

TABLE XXXV

Mill N -- 42-lb. Linerboard

43.1	43.6	+0.5	11.8	11.6	-0.2	109	114	+5	41			366 ^a	377	+11	420 ^a	487	+67
43.9	44.0	+0.1	13.6	13.1	-0.5	104	103	-1	39			354 ^a	417	+63	405 ^a	489	+84
44.0	42.6	-1.4	12.1	11.4	-0.7	108	107	-1	39			367	330	-37	419 ^a	423	+4
43.7	43.4	-0.3	12.5	12.0	-0.5	107	108	+1	40			362	375	+13	415	467	+52

ages for one or more specimens which tore beyond the 3/8-inch limit.

data are calculated from the totals of the individual readings.

TABLE XXXIV

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	IPC	Basis Weight, lb.	Diff.	IPC	Caliper, points	Diff.	IPC	Bursting Strength, p.s.i.	Diff.	IPC	G. E. Puncture, units	Diff.	IPC	Elmendor. g./sq. in	Diff.
156812	M-217	W.	1/20/54	2	42.7	41.6	-1.1	13.8	13.1	-0.7	106	118	+12	36	29	-7	361 ^a	373	+12
156967	M-218	W.	2/13/54	2	42.4	41.0	-1.4	13.7	12.6	-1.1	103	111	+8	34	25	-9	351 ^a	301	-50
156968	M-219	W.	2/9/54	4	43.6	42.1	-1.5	13.6	12.6	-1.0	100	111	+11	36	27	-9	403 ^a	345	-58
Current Mill Average:					42.9	41.5	-1.4	13.7	12.8	-0.9	103	114	+11	35	27	-8	372	340	-32

Mill M -- 42-lb. Linerboard

156877	M-55	---	1/25/54	1	43.1	43.6	+0.5	11.8	11.6	-0.2	109	114	+5	41			366 ^a	377	+11
156878	M-56	WTIS	1/28/54	1	43.9	44.0	+0.1	13.6	13.1	-0.5	104	103	-1	39			354 ^a	417	+63
156982	M-57	D.F.	2/12/54	1	44.0	42.6	-1.4	12.1	11.4	-0.7	108	107	-1	39			367	330	-37
Current Mill Average:					43.7	43.4	-0.3	12.5	12.0	-0.5	107	108	+1	40			362	375	+13

Mill N -- 42-lb. Linerboard

TABLE XXXV

^aThis average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXVI

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (continued)

Institute Data versus Mill Data

Mch. No.	Basis Weight, lb.	IPC Mill Diff.	Caliper, points	IPC Mill Diff.	Bursting Strength, P.s.i.	Gage	IPC Mill Diff.	G. E. Puncture, units	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	Elmendorf Tear, In g./sheet	IPC Mill Diff.	IPC Mill Diff.
<u>Mill O--42-lb. Linerboard</u>														
3	41.4	41.7	+0.3	12.1	11.9	-0.2	113	104	-9	35	337	313	-24	361a 371 +10
3	41.9	41.7	-0.2	12.4	11.9	-0.5	108	102	-6	36	343a	332	-11	380a 391 +11
3	42.0	41.8	-0.2	12.7	12.4	-0.3	106	103	-3	36	349a	332	-17	379a 373 -6
3	41.2	41.0	-0.2	12.2	11.7	-0.5	109	103	-6	35	327a	312	-15	356a 368 +12
3	41.9	42.2	+0.3	12.4	11.8	-0.6	109	109	0	36	330	317	-13	377a 384 +7
	41.7	41.7	0.0	12.4	11.9	-0.5	109	104	-5	36	337	321	-16	371 377 +6

TABLE XXXVII

Mill E--44/46-lb. Drum Linerboard

2	49.8	50.0	+0.2	14.5	13.8	-0.7	114	114	0	41	42	+1	441a 433 -8	437a 432 -5
	49.8	50.0	+0.2	14.5	13.8	-0.7	114	114	0	41	42	+1	441 433 -8	437 432 -5

MiscellaneousMill E--69-lb. Linerboard

2	71.2	71.9	+0.7	20.5	19.6	-0.9	162	168	+6	70	66	-4	613a 556 -57	687a 644 -43
---	------	------	------	------	------	------	-----	-----	----	----	----	----	--------------	--------------

Mill E--90-lb. Linerboard

2	91.6	91.8	+0.2	26.9	25.6	-1.3	154	158	+4	100	96	-4	800a 747 -53	889a 895 +6
---	------	------	------	------	------	------	-----	-----	----	-----	----	----	--------------	-------------

The readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XXXVI

SUMMARY OF INDIVIDUAL TEST LOTS--FEBRUARY 1 THROUGH FEBRUARY 28, 1954 (c)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting		G. E.				
					lb.	Diff.	points	Diff.	Strength,	P.s.i. gage	Puncture,	units	Diff.	IPC	
<u>Mill 0-42-1b. Linerboard</u>															
156813	0-26	W.F.	1/21/54	3	41.4	41.7	+0.3	12.1	11.9	-0.2	113	104	-9	35	337
156814	0-27	W.F.	1/22/54	3	41.9	41.7	-0.2	12.4	11.9	-0.5	108	102	-6	36	343
156815	0-28	W.F.	1/22/54	3	42.0	41.8	-0.2	12.7	12.4	-0.3	106	103	-3	36	349
156930	0-29	W.F.	2/9/54	3	41.2	41.0	-0.2	12.2	11.7	-0.5	109	103	-6	35	327
156931	0-30	W.F.	2/10/54	3	41.9	42.2	+0.3	12.4	11.8	-0.6	109	109	0	36	330
Current Mill Average:					41.7	41.7	0.0	12.4	11.9	-0.5	109	104	-5	36	337

TABLE XXXVII

156932	E-59	—	2/12/54	2	49.8	50.0	+0.2	14.5	13.8	-0.7	114	114	0	41	42	+1	441
Current Mill Average:					49.8	50.0	+0.2	14.5	13.8	-0.7	114	114	0	41	42	+1	441

Miscellaneous

156816	E-57		1/26/54	2	71.2	71.9	+0.7	20.5	19.6	-0.9	162	168	+6	70	66	-4	613
					Mill E--69-lb. Linerboard												
156817	E-58		1/27/54	2	91.6	91.8	+0.2	26.9	25.6	-1.3	154	158	+4	100	96	-4	800
					Mill E--90-lb. Linerboard												

^a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

